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# A SURVEY OF MINERAL INDUSTRY ATTITUDES TOWARD MINERAL EXPLORATION AND DEVELOPMENT IN NEW BRUNSWICK AND NOVA SCOTIA

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# A SURVEY OF MINERAL INDUSTRY ATTITUDES TOWARD MINERAL EXPLORATION AND DEVELOPMENT IN NEW BRUNSWICK AND NOVA SCOTIA

for:

MINERAL POLICY SECTOR
ENERGY, MINES AND RESOURCES CANADA

CANADA - NEW BRUNSWICK MINERAL DEVELOPMENT AGREEMENT
CANADA - NOVA SCOTIA MINERAL DEVELOPMENT AGREEMENT

Contract: 11SC.23230-6-0278
Project Authority: Mr. Donald Stonehouse

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March 1988

## PREFACE

This survey was undertaken by John A. Leslie & Associates Limited, consultant geologists, as the principal contractor, supported by Canmac Economics Limited, economists responsible for questionnaire design and data analysis.

## ABSTRACT

The mineral industry was surveyed regarding it attitude toward exploration and/or development in New Brunswick and Nova Scotia. Respondents were asked to rate factors which influenced their participation and non-participation in each province. They were also asked to comment on what was required to enhance exploration and/or development in these provinces. Knowledge of why involved companies and individuals are active would facilitate building on apparent strengths. Similarly, knowledge of why others are reluctant to become involved would facilitate formulation of remedial action.

Data analysis and interpretation indicate the collective importance to all respondents of many factors. These pertain to the collection of geologic data, financial considerations, governmental action and information regarding the activities of both government and industry.

The single most dominant factor influencing participation in exploration and/or development in each province is their geologic potential. Favorable government legislation and government support rank next in importance. Non-participants cited company objectives as the factor which most influenced their decision not to participate. Other factors considered by the latter to be

of importance include lack of viable mining operations, lack of proposals and lack of information regarding current government and industry activities.

Both participants and non-participants judged financial considerations to be most important in terms of future enhancement of the mining industry in each province. Viable mining operations and promotion rank next in importance for non-participants. New Brunswick participants considered improved geologic data base and workable legislation to be second in importance to financial considerations. Participants in Nova Scotia thought better access to mineral lands and viable mining operation were next in importance to financial consideration as requirements to enhance mining activity in that province.

Several issues, therefore, require improvement and remedial action. All involved, governments, companies and individuals, have the responsibility of addressing these issues. Some issues have been or are currently being addressed. This process must continue and, in some instances, be expanded. As considerable response was apparently influenced by a general unawareness of the actual events and activities in both provinces, improved distribution of information is necessary. Cooperation among all involved is necessary to ensure that the mineral industry flourishes in both New Brunswick and Nova Scotia.

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## LIST OF ACCOMPANYING DOCUMENTS

The survey database is stored on three diskettes. These are available upon request at an additional cost from the Minerals and Energy Division office, Fredericton, NB.

## 1.0 INTRODUCTION

The Canadian mineral industry was surveyed regarding its attitude towards mineral exploration and development in New Brunswick and Nova Scotia. Announcements of significant gold discoveries in New Brunswick and Nova Scotia over the past couple of years have seemingly not created the interest that comparable results have achieved in other regions of Canada. It was, therefore, thought timely to ascertain the industry's attitude towards the region from a national perspective. This study represents the most comprehensive assessment ever undertaken in this regard.

Although many reasons have been cited by the industry for lack of participation in these provinces, there was a need to acquire a consensus of the contributing factors so that they may be appropriately addressed by both governments and industry. Knowledge of why involved companies are active would facilitate building on apparent strengths. Similarly, knowledge of why others are reluctant to become involved would facilitate formulation of remedial action.

The survey methodology and the various statistical analyses undertaken are described. Respondent background data are presented which identify respondent types, period of participation,

commodities of interest, type of work undertaken, type of work arrangements and exploration and development expenditures. These data are compiled and tabulated to permit comparison between the two provinces as well as between each province and the national trends.

Questions regarding decisions to explore and develop and what is required to enhance exploration and development are discussed separately for each province. Responses by both participants and non-participants in each provinces are analysed. Similarity of the responses permitted formulation of general conclusions and recommendations. Specific reference is made to those aspects for which each province received significantly different response.

## 2.0 ACKNOWLEDGEMENTS

The cooperation and input of the mineral industry respondents is gratefully acknowledged. The support offered by the New Brunswick Department of Natural Resources and Energy, the Nova Scotia Department of Mines and Energy, the New Brunswick Prospectors and Developers Association and the Nova Scotia Chamber of Mineral Resources is also appreciated.

## 3.0 METHODOLOGY

A combined mail and telephone survey was undertaken to collect data pertinent to the study of the mineral industry's attitudes

toward exploration and/or development in New Brunswick and Nova Scotia. The telephone survey was done of respondents who neglected to respond to the mailed questionnaire. Both the mailed questionnaires and the telephone interviewing sought participation from persons who were knowledgeable of the exploration and/or development activities of their organization.

### 3.1 Potential Respondent Identification

A potential respondent list was developed of participants in the metallic and industrial minerals sectors of the industry. The potential respondents were categorized as follows: 1) companies with Canadian production; 2) active companies with reportedly available financing for significant exploration and development; 3) active companies which reportedly demonstrated the ability to acquire financing for significant exploration and development; 4) geological consulting companies; and 5) individual consultants, prospectors and entrepreneurs.

Although some bias may have been introduced within the above categories, the sample number was sufficiently large to be representative of the entire population. Names, addresses, telephone numbers, etc., were identified from various publications, trade journals, government agencies, mineral rights holders, etc. A total of 1,111 potential respondents was identified and comprised the mailing list for the mailed questionnaires.

However, 58 questionnaires were returned because of wrong and invalid addresses. Thus, the mailed questionnaires reached 1,053 potential respondents.

A list of potential participants for telephone interviews was randomly selected from those who had neglected to respond to the mailed questionnaire. A total of 336 potential interviewees was identified.

### 3.2 Questionnaires

Questionnaires were developed for mailing and telephone interviews. The latter was essentially a short version of the mailed questionnaire. Copies of the questionnaires are illustrated in appendices I and II. Content input was solicited from the Mineral Policy Sector, Energy, Mines and Resources Canada, the New Brunswick Department of Natural Resources and Energy, the Nova Scotia Department of Mines and Energy, and various interest groups and individuals.

### 3.3 Pilot Study

A small pilot study was conducted to test the clarity of the developed questionnaire. It involved a cross-section of participants in the minerals industry. Comments were received regarding the format of the questionnaire and these were included in the final version. No changes were required to the content. Therefore, the returned data could be incorporated in the data

analysis of the full survey.

## 4.0 SURVEY RESPONSE

### 4.1 Pilot Project

A total of 14 responses was received to the 16 questionnaires mailed. This represents an 88 per cent return. The high response is attributed to the rather specific request made to the invited respondents.

### 4.2 Mailed Questionnaire

A total of 1,037 full survey questionnaires reached potential respondents. This total included 830 mining companies, 43 geological consulting companies and 164 individual consultants, prospectors and entrepreneurs. Mining company returns numbered 168, consulting companies 19 and individual consultants, prospectors and entrepreneurs 47, for response rates of 20.2, 44.2 and 28.7 per cent respectively. This represents an overall response rate for the mailed questionnaire of about 22.5 per cent.

A total of 30 responses was not codeable because of incompleteness. However, some of these and accompanying letters contained constructive comments which could be used in the overall data analysis.

### 4.3 Telephone Interview

A list of randomly selected companies was compiled from the 805

who neglected to respond to the mailed questionnaire. A total of 424 telephone calls was made to 336 organizations and individuals. Difficulties in contacting knowledgeable persons to interview account for the above discrepancy. Most of the interviews were conducted with mining company personnel. This reflects the greater number of companies originally identified as well as their somewhat lower response rate to the mailed questionnaire. In total, 189 interviews were conducted. In only one instance was a knowledgeable person contacted who declined to participate.

### 4.4 Overall Response

A total of 248 responses from a mailing list of 1,053 organizations and individuals was received from the pilot and full survey. This, together with 189 interviews from telephoning 336 organizations and individuals represents an overall response rate of 41.5 per cent.

Resource companies comprised 82.6 per cent of the respondents, prospectors 5.7 per cent, geologic consulting companies 5.4 per cent, individual geologic consultants 4.4 per cent, entrepreneurs 0.2 per cent and others 1.7 per cent.

## 5.0 ANALYTICAL TECHNIQUES

Completed mailed questionnaires and telephone interview data were coded and entered into an IBM compatible microcomputer. All

coding and computer entry were verified. Additionally, a computerized checking program was used to carry out various consistency tests such as responses of out of bound error, etc. The data were entered as a Lotus 123 version 2.0 data base management file. The analyses were conducted using Lotus 123 version 2.0, Reflex Data Base Management version 1.1 and Statgraphics version 2.0. Preliminary statistical analyses were undertaken to determine such parameters as averages and standard deviations. Crosstabulation was done for various questions and breakdowns of sub-populations. In addition, cluster analyses were performed to determine if the survey population clustered into sub-groups with distinctive reasons for participation or non-participation in New Brunswick and Nova Scotia.

Tables incorporated in the text illustrate the various types of data examined. The data base used in the survey analysis has been stored on Lotus 123 version 2.0 files. These files are contained on three 5.25 inch diskettes inserted in pocket at end of study. Disk 3 contains a Readme.doc DOS Text file which describes the contents of each diskette. This file also includes the manual used to code the received responses.

## 6.0 PROVINCIAL PARTICIPATION

The breakdown of respondent participation in mineral exploration and development in New Brunswick and Nova Scotia was as follows.

Respondent participation in New Brunswick and Nova Scotia was 30.1 and 31.8 per cent respectively. Twenty per cent of the respondents had participated in exploration and/or development in both New Brunswick and Nova Scotia; whereas 57.4 per cent had participated in neither province. Participation in New Brunswick only and Nova Scotia only comprised 10.1 and 11.8 per cent respectively of the respondents.

Table I illustrates the percentage of those involved in the provinces with respect to time. Many respondents were active in more than one time period.

**Table I Provincial Participants vs Time Period**

| | Per Cent Participation | |
|---|---|---|
| Time Period | New Brunswick | Nova Scotia |
| 1987 | 42.74 | 54.33 |
| 1982 - 1986 | 59.68 | 57.48 |
| 1977 - 1981 | 43.55 | 43.31 |
| Pre-1977 | 46.77 | 42.19 |

This data suggests a general increase in exploration and/or development activities to 1986. The apparent decline in 1987 is attributed to the time period being limited to one year. More respondents participated in Nova Scotia in 1987 than in New Brunswick, reflecting more precious metals exploration in the former.

## 7.0 RESPONDENT BACKGROUND DATA

Respondents were queried on commodities of interest, type of work

undertaken, type of work arrangements and exploration and/or development expenditures. Participants were asked to provide this information for each province of participation and nationally, whereas non-participants were asked to provide national data. The results are discussed in the following sections.

### 7.1 Commodities of Interest

The percentage of respondents interested in various commodities nationally is illustrated in Table II. The response for those participating in exploration and development in New Brunswick and Nova Scotia is also tabulated. Several respondents expressed an interest in more than one commodity. The high interest in the precious metals undoubtedly reflects the current price and market for these metals.

**Table II Per Cent Response vs Commodity of Interest**

| | Per Cent Response | | |
|---|---|---|---|
| Commodity | National | New Brunswick | Nova Scotia |
| Base Metals | 34.6 | 56.00 | 37.88 |
| Precious Metals | 92.9 | 64.80 | 71.97 |
| Tin-Tungsten-Molybdenum | 6.9 | 20.00 | 18.94 |
| Uranium | 3.7 | 16.80 | 14.39 |
| Iron-Manganese | 2.9 | 4.80 | 4.55 |
| Industrial Minerals | 14.7 | 16.00 | 22.73 |
| Other | 8.6 | 2.40 | 3.79 |

Interest in most commodities is higher in New Brunswick and Nova Scotia than nationally. The one exception is the interest in precious metals which is appreciably higher nationally. Base metal interest is higher in New Brunswick than either in Nova

Scotia or nationally. This is probably a consequence of the proven base metal reserves in the Bathurst-Newcastle area. Relatively high interest in tin-tungsten-molybdenum in both New Brunswick and Nova Scotia undoubtedly reflects the developments at Mount Pleasant and Kemptville respectively.

The higher precious metal interest in Nova Scotia compared to that of New Brunswick may be attributed to both current and historic developments in the former. The relatively high interest in uranium in both New Brunswick and Nova Scotia is rather surprising considering the current market situation and the moratorium on uranium mining in Nova Scotia.

### 7.2 Type of Work Undertaken

A measure of the type of work undertaken by both those who participate and those who do not participate in exploration and/or development in New Brunswick and Nova Scotia is illustrated in Table III.

**Table III Type of Work Undertaken**

Per Cent Response

| | Participants | | Non-Participants | |
|---|---|---|---|---|
| Type of Work | N. B. | N. S. | N. B. | N. S. |
| Desk Studies | 76.80 | 76.52 | 62.99 | 64.60 |
| Reconnaissance | 72.00 | 66.67 | 64.41 | 63.50 |
| Grassroots Property | 71.20 | 67.42 | 67.26 | 67.88 |
| Detailed Evaluation (1) | 52.80 | 50.76 | 68.68 | 70.80 |
| Detailed Evaluation (2) | 51.20 | 48.48 | 66.55 | 67.15 |
| Development | 18.40 | 12.12 | 37.72 | 39.42 |
| Production | 11.20 | 6.06 | 25.72 | 27.01 |
| Other | 4.80 | 8.33 | 4.63 | 3.65 |

1. Of targets developed by own efforts.
2. Of targets developed by efforts of others

It should be pointed out that the response of non-participants does not necessarily represent a national response. Participants in each province may also be active nationally. Consequently, comparison can only be made between the type of work done in each province with that which non-participants usually carry out in other parts of Canada. Regardless, there is a suggestion that preliminary types of investigation are more common than detailed investigations in New Brunswick and, to a lesser extent, in Nova Scotia. This may be an indication of the type of exploration targets available. A similar contrast is absent in the type of work carried out by non-participants in other parts of the country. Non-participants are, however, generally more involved in development and/or production than are participants in either New Brunswick or Nova Scotia. This would suggest that relatively more of the projects in these provinces are in the exploration rather than the development and production stages.

### 7.3 Types of Work Arrangements

Table IV offers a comparison of the types of work arrangements by those participating in exploration in New Brunswick and Nova Scotia with those who are not participating. It is apparent that those involved in New Brunswick tend to work on solely owned properties more so than either those involved in Nova Scotia or those non-participants active elsewhere in Canada. There is also

**Table IV Types of Work Arrangements**

Per Cent Response

| Work Arrangement | Participants | | Non-Participants | |
|---|---|---|---|---|
| | N. B. | N. S. | N. B. | N. S. |
| Alone | 58.52 | 44.41 | 43.70 | 44.17 |
| Joint Venture | 11.28 | 14.58 | 30.30 | 31.31 |
| Under Option | 12.20 | 22.37 | 19.80 | 18.50 |
| Other | 18.00 | 18.64 | 6.20 | 6.02 |

less joint venturing and optioning of properties by the participants in both provinces than by non-participants elsewhere. Again, this could be indicative of the types of exploration targets available, and of the amount of interest shown in them. The "other" category is essentially comprised of the response from consultants who stated services, contracting, etc., as work arrangements.

**7.4 Exploration and Development Expenditures**

Table V illustrates the per cent of the various types of respondents whose national exploration and development expenditures fall within selected ranges.

It is not surprising that companies generally have the larger budgets. The relatively large percentages for the other types of respondents, particularly the consultants and "other", are misleading. The number of respondents of these latter types is disproportionally small in comparison to the number of company respondents.

**Table V Respondent Type and National Expenditures**

| | Per Cent Respondent - Expenditure Range | | | | |
|---|---|---|---|---|---|
| Respondent Type | $1-$50,000 | $50,000-$100,000 | $100,000-$500,000 | $500,000-$1,000,000 | $1,000,000+ |
| Company | 15.2 | 8.3 | 20.0 | 11.7 | 44.8 |
| Prospector | 86.4 | 4.6 | 4.5 | 4.5 | 0.0 |
| Consultant (Ind.) | 46.1 | 7.7 | 23.1 | 7.7 | 15.4 |
| Consultant (Cos.) | 50.0 | 7.2 | 28.6 | 7.1 | 7.1 |
| Entrepreneur | 100.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Other | 33.3 | 0.0 | 33.3 | 16.7 | 16.7 |
| Total | 28.4 | 7.5 | 19.4 | 10.4 | 34.3 |

Table VI illustrates the per cent of respondents whose New Brunswick expenditures for various time periods fall within selected ranges. With the exception of the period 1977-1981, the respondents spent more money in 1987 than in any previous period.

**Table VI New Brunswick Expenditures - Time Period**

| | Per Cent Respondent - Expenditure Range | | | | |
|---|---|---|---|---|---|
| Time Period | $1-$50,000 | $50,000-$100,000 | $100,000-$500,000 | $500,000-$1,000,000 | $1,000,000+ |
| 1987 | 55.00 | 17.50 | 20.00 | 0.00 | 7.50 |
| 1982 - 1986 | 59.26 | 12.96 | 18.52 | 1.85 | 7.41 |
| 1977 - 1981 | 32.00 | 8.00 | 44.00 | 0.00 | 16.00 |
| Pre 1977 | 56.25 | 12.50 | 25.00 | 0.00 | 6.25 |

Table VII illustrates the per cent of respondents whose Nova Scotia expenditures for various time periods fall within selected ranges. The percentage of participants spending sums in excess of $1,000,000 in 1987 is greater than for any other period analysed.

**Table VII Nova Scotia Expenditures - Time Period**

| | Per Cent Respondent - Expenditure Range | | | | |
|---|---|---|---|---|---|
| Time Period | $1-$50,000 | $50,000-$100,000 | $100,000-$500,000 | $500,000-$1,000,000 | $1,000,000+ |
| 1987 | 50.00 | 19.56 | 15.22 | 0.00 | 15.22 |
| 1982 - 1986 | 55.10 | 20.41 | 16.33 | 2.04 | 6.12 |
| 1977 - 1981 | 39.48 | 21.05 | 31.58 | 2.63 | 5.26 |
| Pre 1977 | 42.43 | 9.09 | 39.39 | 0.00 | 9.09 |

Sub-set analyses were carried out to ascertain relationships between the national expenditures of participants in each province and their expenditures in each province. Tables VIII and IX illustrate the per cent response for provincial expenditure ranges relative to the national expenditure of participants.

**Table VIII N. B. Participants - National and N. B. Expenditures**

| National Expenditure | Per Cent Respondent - N. B. Expenditure Range | | | | |
|---|---|---|---|---|---|
| ($000.00) | $1-$50,000 | $50,000-$100,000 | $100,000-$500,000 | $500,000-$1,000,000 | $1,000,000+ |
| $1-50 | 100.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| $50-100 | 0.00 | 100.00 | 0.00 | 0.00 | 0.00 |
| $100-500 | 14.29 | 28.57 | 57.14 | 0.00 | 0.00 |
| $500-1,000 | 100.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| $1,000+ | 35.71 | 21.43 | 21.43 | 0.00 | 21.43 |

All participating respondents with national budgets less than $100,000 spent 100 per cent of their entire budget in New Brunswick. Others with national budgets in excess of $100,000 spent lesser percentages. For instance, of those with national budgets between $100,000 - $500,000, only 57.14 per cent spent within this range in the province, and 42.86 per cent spent less

than $100,000. Those with national budgets between $500,000 and $1,000,000 all spent ten per cent or less ($50,000 or less) locally. Finally, of those with national budgets in excess of $1,000,000, only 21.43 per cent spent such sums, and 57.14 per cent spent ten per cent or less ($100,000 or less) in the province.

In general, the greater the national budget, the smaller the percentage spent. This suggests that a greater portion of the larger budgets may be available for spending in New Brunswick.

**Table IX N. S. Participants - National and N. S. Expenditures**

| National Expenditure | Per Cent Respondent - N. S. Expenditure Range | | | | |
|---|---|---|---|---|---|
| ($000.00) | $1-$50,000 | $50,000-$100,000 | $100,000-$500,000 | $500,000-$1,000,000 | $1,000,000+ |
| $1-50 | 100.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| $50-100 | 0.00 | 100.00 | 0.00 | 0.00 | 0.00 |
| $100-500 | 20.00 | 30.00 | 50.00 | 0.00 | 0.00 |
| $500-1,000 | 50.00 | 0.00 | 0.00 | 50.00 | 0.00 |
| $1,000+ | 23.53 | 23.53 | 11.76 | 0.00 | 41.18 |

As is the case in New Brunswick, all participating respondents with national budgets less than $100,000 spent their entire budget in Nova Scotia. Others also spent somewhat less. Of those with national budgets between $100,000-$500,000, 50 per cent spent within this range, and 50 per cent spent $100,000 or less. Similarly, of those with national budgets of $500,000-$1,000,000, 50 per cent spent within this range while 50 per cent spent ten per cent or less ($50,000 or less) of this amount locally.

Finally, of those with national budgets in excess of $1,000,000, 41.18 per cent spent these amounts while 47.06 per cent spent ten per cent or less ($100,000 or less) in the province. These observations also suggest that a greater portion of the larger budgets may be available for spending in Nova Scotia.

## 8.0 FACTORS INFLUENCING PARTICIPATION/NON-PARTICIPATION

In one of the more important questions of the survey respondents were asked to rate provided factors in terms of their importance in influencing their participation or non-participation in mineral exploration and/or development in New Brunswick and Nova Scotia (see also questionnaires, appendices I and II). These factors pertain to geological, financial, governmental, informational and other aspects. They are those factors which are generally considered to play a role in exploration and/or development decisions.

The average, standard deviation and per cent response of the ratings for each factor are examined for both participants and non-participants. The average rating for the various factors have been grouped and ranked. Ratings 5 and 6 are considered very important, 3 and 4 moderately important, 1 and 2 of little importance and 1 of no importance. The above statistical parameters and the per cent rating response are discussed for the appropriate province of participation or non-participation in the

following sections. Sub-sets of data analysis are also provided which will examine relationships between influencing factors and respondent type.

Cluster analyses are performed on the questions relating to factors influencing participation and non-participation to determine if the survey population clustered into sub-groups with distinctive reasons for participation or non-participation. (See also Appendix I, sections IV and V, question 6). The procedure used is known as hierarchical clustering. Similarity was measured using the centroid method. Predefined clusters of 5 and 10 are used in this particular analysis.

## 9.0 THE DECISION TO EXPLORE OR DEVELOP IN NEW BRUNSWICK

Table X summarizes the statistical data for those respondents who have participated or are participating in exploration and development in New Brunswick. Interpretation of average, standard deviation, per cent rating response and cluster analysis follow.

### 9.1 Average Response (grouped and ranked)

Very Important

1. geologic potential

**Table X Factors Influencing Participation in New Brunswick**

| Factor | Ave. | Std. Dev. | RATING (% RESPONSE) No Importance 0 | 1 | 2 | 3 | 4 | Very Important 5 | 6 | Total |
|---|---|---|---|---|---|---|---|---|---|---|
| Geologic Potential | 5.22 | 0.96 | 0.00 | 0.00 | 0.00 | 6.78 | 16.95 | 23.73 | 52.54 | 100.00 |
| Geologic Data Base | 3.92 | 1.50 | 4.71 | 2.35 | 3.53 | 27.06 | 28.24 | 16.47 | 17.65 | 100.00 |
| MDA Generated Data | 3.46 | 1.56 | 6.02 | 3.61 | 15.66 | 25.30 | 21.69 | 18.07 | 9.64 | 100.00 |
| Access to Files | 4.23 | 1.61 | 3.66 | 2.44 | 7.32 | 18.29 | 20.73 | 17.07 | 30.49 | 100.00 |
| Like other Environment | 3.95 | 1.72 | 6.02 | 2.41 | 13.25 | 13.25 | 21.69 | 20.48 | 22.89 | 100.00 |
| Activities of Others | 3.19 | 1.61 | 6.19 | 7.22 | 19.59 | 28.87 | 14.43 | 13.40 | 10.31 | 100.00 |
| Proposals | 2.01 | 1.71 | 28.75 | 13.75 | 16.25 | 22.50 | 10.00 | 5.00 | 3.75 | 100.00 |
| Available Financing | 3.33 | 2.18 | 15.48 | 13.10 | 7.14 | 13.10 | 15.48 | 9.52 | 26.19 | 100.00 |
| Incentives | 2.45 | 2.12 | 28.95 | 9.21 | 14.47 | 19.74 | 6.58 | 5.26 | 15.79 | 100.00 |
| Tax Regime | 3.41 | 2.02 | 12.35 | 9.88 | 8.64 | 20.99 | 13.58 | 11.11 | 23.46 | 100.00 |
| Cost Effectiveness | 3.84 | 1.76 | 7.89 | 2.63 | 6.58 | 26.32 | 15.79 | 18.42 | 22.37 | 100.00 |
| Favorable Legislation | 4.50 | 1.46 | 2.50 | 0.00 | 5.00 | 18.75 | 20.00 | 18.75 | 35.00 | 100.00 |
| Government Cooperation | 4.20 | 1.67 | 3.70 | 3.70 | 9.88 | 12.35 | 22.22 | 18.52 | 29.63 | 100.00 |
| Target Access | 4.10 | 1.53 | 3.70 | 2.47 | 4.94 | 24.69 | 18.52 | 24.69 | 20.99 | 100.00 |
| Market Access | 3.75 | 1.82 | 7.59 | 6.33 | 7.59 | 22.78 | 16.46 | 16.46 | 22.78 | 100.00 |
| Available Services | 3.47 | 1.62 | 7.79 | 3.90 | 11.69 | 25.97 | 22.08 | 18.18 | 10.39 | 100.00 |
| Existing Facilities | 3.86 | 1.54 | 5.06 | 2.53 | 6.33 | 25.32 | 25.32 | 18.99 | 16.46 | 100.00 |
| New Product Demand | 2.08 | 1.80 | 28.95 | 15.79 | 9.21 | 26.32 | 7.89 | 7.89 | 3.95 | 100.00 |
| New Technology | 2.12 | 1.90 | 27.27 | 18.18 | 14.29 | 18.18 | 9.09 | 3.90 | 9.09 | 100.00 |
| Other | 4.50 | 2.22 | 16.67 | 0.00 | 0.00 | 8.33 | 8.33 | 8.33 | 58.33 | 100.00 |

Moderately Important
1. favorable legislation
2. other
3. access to files
4. government cooperation
5. target access
6. similar to other productive environments
7. geologic data base
8. existing facilities
9. cost effectiveness
10. market access
11. available services
12. mineral development agreement generated data
13. tax regime
14. available financing
15. activities of others

Of little Importance
1. incentives
2. new technology
3. new product demand
4. proposals

**9.2 General Discussion of Data**

It is perhaps not surprising that such factors as geologic potential, favorable legislation, access to government files, etc., rank high. It is, however, interesting that such factors as tax regime, available financing, incentives, activities of others and mineral development agreement generated data rank low. The importance of available financing is clearly indicated in a question regarding enhancement of exploration and/or development to be discussed later. One possible explanation for the above lies in the fundamental difference between the two questions. The response to factors influencing participation is essentially

one relating to a past decision. The question regarding enhancement addresses future requirements and that which is important for future, continuing activity in the mining sector.

The relatively high rank of the "other" factor reflects the tendency of respondents to rate such factors in this manner. If this factor is deemed sufficiently significant for inclusion, it would tend to be given a high rating. The "other" factors include proximity to tidewater, gold is where you find it and good services. These could also be categorized with comparable listed factors such as target access, geologic potential and available services.

The standard deviation is a measure of the variability of the data distribution. The average standard deviation of the rating of all factors is 1.72. This denotes considerable variability. It is interesting to note that the standard deviation (0.96) for the geologic potential is about one half this average. This signifies relatively high agreement by the participants in New Brunswick on the importance of this factor.

The per cent rating response received for each factor provides information on the rating distribution. The data presented in Table X shows a variety of distribution patterns. The J-shaped distribution in rating geologic potential illustrates the high degree of importance placed on this particular factor. The

ratings of factors such as proposals, available financing, incentives, target access and market access exhibit bimodal and multimodal distributions. This denotes a partitioning of response and the presence of sub-populations of respondents. More or less symmetrical distributions are indicated in rating the importance of activities of others and mineral development agreement generated data. This signifies that such factors are moderately important to the majority of respondents, with the remainder more or less equally divided between these factors being very important or of little or no importance.

Varying degrees of negative skewness are apparent for some factors. The ratings at the important end of the scale received the most response for these factors. For instance, 62.36 per cent of the response to geologic data base was for ratings greater than three, whereas 10.59 per cent was for ratings less than three.

**9.3 Sub-Set Analysis - Respondent Type and Participation**

Sub-set analyses were performed to compare the average response to factors influencing participation in New Brunswick by the different types of respondents to that of the total population. Company response averages approximate those of the total population. This is understandable as companies comprise the majority of all respondents.

Of the remaining types of respondents, only the response averages for prospectors differ appreciably from those of the total population. Prospectors indicated a greater importance for such factors as data generated by mineral development agreements, access to files, activities of others, favorable legislation and available services. This illustrates the special interests of this type of respondent and their requirements to function successfully.

### 9.4 Cluster Analysis

Table XI illustrates the cluster analysis for factors influencing participation in exploration and development in New Brunswick. Similar responses were received from 86 and 70 per cent of the survey population with predefined cluster limits of 5 and 10 respectively. The respondents remain grouped in one cluster. There is, therefore, no significant partitioning of responses. The responses were similar despite varied economic and organization profiles.

**Table XI Cluster Analyses - N. B. Participation Factors**

Predefined 5 Clusters

| Cluster | Frequency Response | Per Cent Response |
|---|---|---|
| 1 | 1 | 2.0 |
| 2 | 3 | 6.0 |
| 3 | 1 | 2.0 |
| 4 | 43 | 86.0 |
| 5 | 2 | 4.0 |

**Table XI (Cont'd.)**

Predefined 10 Clusters

| Cluster | Frequency Response | Per Cent Response |
|---|---|---|
| 1 | 1 | 2.0 |
| 2 | 3 | 6.0 |
| 3 | 2 | 4.0 |
| 4 | 35 | 70.0 |
| 5 | 1 | 2.0 |
| 6 | 2 | 4.0 |
| 7 | 2 | 4.0 |
| 8 | 1 | 2.0 |
| 9 | 1 | 2.0 |
| 10 | 2 | 4.0 |

## 10.0 THE DECISION NOT TO EXPLORE OR DEVELOP IN NEW BRUNSWICK

Table XII summarizes the statistical data for those respondents who have not participated or are not participating in exploration and/or development in New Brunswick. Interpretation of average, standard deviation, per cent rating response and cluster analysis follow.

### 10.1 Average Response (grouped and ranked)

Very Important
1. other

Moderately Important
1. company objectives
2. lack of proposals
3. lack of information re- MDA generated data
4. lack of information re- current activities
5. perceived geologic potential
6. lack of financing
7. perceived data base

**Table XII Factors Influencing Non-Participation in New Brunswick**

| Factor | Ave. | Std. Dev. | RATING (% RESPONSE) No Importance 0 | 1 | 2 | 3 | 4 | 5 | Very Important 6 | Total |
|---|---|---|---|---|---|---|---|---|---|---|
| Perceived Potential | 2.89 | 2.26 | 29.51 | 4.92 | 5.74 | 14.75 | 13.94 | 14.75 | 16.39 | 100.00 |
| Perceived Data Base | 2.84 | 2.24 | 30.65 | 2.92 | 6.57 | 15.33 | 18.98 | 7.30 | 18.25 | 100.00 |
| Lack Info re MDA Data | 3.10 | 2.25 | 25.21 | 5.88 | 5.04 | 14.29 | 16.81 | 11.76 | 21.01 | 100.00 |
| Historic Activities | 2.19 | 2.20 | 40.48 | 8.33 | 5.95 | 13.10 | 11.90 | 9.52 | 10.71 | 100.00 |
| Lack Info re Activities | 3.06 | 2.05 | 19.20 | 7.20 | 9.60 | 20.80 | 15.20 | 11.20 | 16.80 | 100.00 |
| Lack of Proposals | 3.84 | 2.12 | 13.11 | 4.10 | 9.02 | 14.75 | 12.30 | 11.48 | 35.25 | 100.00 |
| Company Objectives | 4.19 | 2.09 | 11.88 | 3.13 | 6.25 | 10.63 | 13.13 | 11.25 | 43.75 | 100.00 |
| Land Entry Difficulty | 1.77 | 1.92 | 44.57 | 8.70 | 6.52 | 21.74 | 6.52 | 7.61 | 4.35 | 100.00 |
| Moratoria | 1.01 | 1.67 | 63.51 | 10.81 | 5.41 | 13.51 | 0.00 | 1.35 | 5.41 | 100.00 |
| Metallurgical Problems | 0.90 | 1.41 | 62.82 | 12.82 | 5.13 | 14.10 | 2.56 | 1.28 | 1.28 | 100.00 |
| Environmental Problems | 1.50 | 1.72 | 46.34 | 9.76 | 14.63 | 15.85 | 7.32 | 2.44 | 3.66 | 100.00 |
| Public Attitudes | 1.22 | 1.49 | 50.62 | 13.58 | 8.64 | 20.99 | 3.70 | 1.23 | 1.23 | 100.00 |
| Lack of Financing | 2.86 | 2.25 | 25.78 | 7.81 | 10.94 | 15.63 | 10.16 | 8.59 | 21.09 | 100.00 |
| Lack of Stock Exchange | 1.15 | 1.94 | 64.29 | 11.90 | 1.19 | 9.52 | 1.19 | 3.57 | 8.33 | 100.00 |
| Area Competition | 2.48 | 2.49 | 39.51 | 9.88 | 4.94 | 8.64 | 7.41 | 4.94 | 24.69 | 100.00 |
| Unfavorable Tax Regime | 1.64 | 1.89 | 47.50 | 7.50 | 11.25 | 16.25 | 8.75 | 2.50 | 6.25 | 100.00 |
| Lack of Incentives | 2.42 | 2.28 | 37.21 | 6.98 | 5.81 | 16.28 | 10.47 | 6.98 | 16.28 | 100.00 |
| Unfavorable Legislation | 1.65 | 1.94 | 48.10 | 7.59 | 10.13 | 18.99 | 2.53 | 6.33 | 6.33 | 100.00 |
| Lack Gov't. Cooperation | 1.92 | 2.09 | 43.02 | 11.63 | 5.81 | 13.95 | 8.14 | 10.47 | 6.98 | 100.00 |
| Commodity Prices | 1.41 | 1.94 | 56.25 | 10.00 | 2.50 | 16.25 | 3.75 | 5.00 | 6.25 | 100.00 |
| Lack of Local Services | 1.25 | 1.65 | 53.75 | 11.25 | 8.75 | 17.50 | 3.75 | 1.25 | 3.75 | 100.00 |
| Lack of Personnel | 1.30 | 1.70 | 50.00 | 18.29 | 4.88 | 14.63 | 6.10 | 2.44 | 3.66 | 100.00 |
| Lack of Facilities | 1.41 | 1.90 | 51.25 | 16.25 | 3.75 | 15.00 | 3.75 | 2.50 | 7.50 | 100.00 |
| Other | 4.71 | 2.13 | 14.29 | 0.00 | 2.86 | 2.86 | 5.71 | 11.43 | 62.86 | 100.00 |

Of little Importance

1. area competition
2. lack of incentives
3. historic activities
4. lack of government cooperation
5. land entry difficulty
6. unfavorable legislation
7. unfavorable tax regime
8. environmental problems
9. commodity prices
10. lack of facilities
11. lack of personnel
12. lack of local services
13. public attitudes
14. lack of stock exchange
15. moratoria
16. metallurgical problems.

**10.2 General Discussion of Data**

The importance of such factors as company objectives, lack of proposals and "other" are indicated by ranking of the ratings each received. The high rank of the "other" factor may be somewhat misleading in consideration of the total population. Of the 22 respondents who ranked this factor as very important, 68 per cent specified the distance from their Vancouver base. Taking this observation into account, and apart from company objectives, the above ranking and categorization suggests a general unawareness of the conditions and events in New Brunswick by non-participants.

It is even conceivable that the company objectives factor may, in part, be a reflection of this general unawareness. Changes in company objectives could be brought about by more awareness of the activities in the province.

As with participants in the province, financial considerations are ranked relatively low for non-participants. The importance of these financial considerations is clearly indicated in a question regarding enhancement of exploration and/or development to be discussed later. Again, a possible explanation for the above lies in the fundamental difference between the two questions. The response to factors influencing participation is essentially one relating to a past decision. The question regarding enhancement addresses future requirements and what is important for future, continuing activity in the mining sector.

The average standard deviation of the ratings of all factors is 1.98 suggesting considerable variability of data distribution. The standard deviation of the ratings for each factor is close to that of the overall average. Consequently, high agreement as to the importance of any one factor is generally lacking in the response of non-participants in New Brunswick.

The per cent rating response to company objectives, moratoria, metallurgical problems, lack of stock exchange and "other" show well defined peaks. This indicates considerable agreement among respondents in rating these factors. Other factors, particularly perceived geologic potential and data base, show broader distributions. In some instances, lack of financing and lack of information regarding activities for example, the distribution is somewhat multimodal. The latter factors are, therefore,

important to certain sub-populations of respondents.

**10.3 Sub-Set Analysis - Respondent Type and Non-Participation**

Sub-set analyses were performed to compare the average response to factors influencing non-participation in New Brunswick by the different types of respondents to that of the total population. As companies comprise the majority of the respondents, it is not surprising that the response averages of this type of respondent are comparable to those of the total population.

Response averages for prospectors were higher for such factors as environmental problems, lack of financing, incentives, lack of stock exchange and lack of available facilities. Individual consultants response average was also higher for incentives, but lower than the total population averages for such factors as lack of proposals and lack of information on current activity. Company consultant response averages, on the other hand, were lower for perceived geologic potential, perceived data base and lack of stock exchange. Finally, the average response of entrepreneurs was higher than the total population for financial and government related matters. These relationships reflect the special interests of each group.

**10.4 Cluster Analysis**

Table XIII illustrates the cluster analysis for factors influencing non-participation in exploration and/or development in New Brunswick.

**Table XIII Cluster Analyses - N. B. Non-Participation Factors**

Predefined 5 Clusters

| Cluster | Frequency Response | Per Cent Response |
|---|---|---|
| 1 | 35 | 87.0 |
| 2 | 1 | 2.5 |
| 3 | 1 | 2.5 |
| 4 | 1 | 2.5 |
| 5 | 2 | 5.0 |

Predefined 10 Clusters

| Cluster | Frequency Response | Per Cent Response |
|---|---|---|
| 1 | 2 | 5.0 |
| 2 | 2 | 5.0 |
| 3 | 2 | 5.0 |
| 4 | 17 | 42.5 |
| 5 | 1 | 2.5 |
| 6 | 1 | 2.5 |
| 7 | 10 | 25.0 |
| 8 | 1 | 2.5 |
| 9 | 2 | 5.0 |
| 10 | 2 | 5.0 |

The predefined cluster limit of 10 shows that non-participants cluster into two sub-groups, 4 and 7, containing 42.5 and 25.0 per cent respectively of the responses to this question. Count distribution analyses indicate that sub-group 4 has a tendency to rank all factors to be of little or no importance. On the other hand, sub-group 7 ranks all the factors as moderately important. This seems to suggest that sub-group 4, or 42.5 per cent of those responding to the question, has little or no interest in New Brunswick. This sub-group is one of inactive non-participants. Sub-group 7, comprising 25.0 per cent of those who responded to

this question, has definite reasons for not participating. Sub-group 7 is one of active non-participants.

Further analyses have shown that the sub-groups do not differ for type of respondent or for commodity of interest. However, sub-group 4, the inactive non-participants, tends to include respondents with either small or very large exploration budgets. Those with smaller budgets may not have the financial resources to consider exploration and/or development in New Brunswick. An explanation for those with very large budgets is more perplexing. Perhaps it reflects lack of knowledge about the industry's activities in the province.

**10.5 Response Comparison - Participants and Non-Participants**

An examination of the overall rating of comparable factors for both participants and non-participants shows the following relationships. Geologic data base and tax regime each are of equal importance to both groups. Participants, however, consider geologic potential, favorable legislation, government support, available services and existing facilities more important than do non-participants. On the other hand, proposals, available financing, incentives, activities of others and mineral development agreement generated data are relatively more important to non-participants. This diversity of response could be a reflection of the participant's working knowledge of New Brunswick. This is in contrast to a general unawareness of the province's current status by non-participants.

## 11.0 ENHANCEMENT OF EXPLORATION AND DEVELOPMENT IN NEW BRUNSWICK

Perhaps the second most important question of the survey was an open question in which respondents were asked to list factors which, in their opinion, are required to enhance participation in exploration and/or development in New Brunswick. Distinction must be made between the data presented in the following sections and in the previous section which pertain to factors which influenced the respondents participation or non-participation in New Brunswick. It is the difference between what influenced their decision and what, in their opinion, is required to enhance exploration and/or development in these areas.

Similar responses to the enhancement question have been grouped and are tabulated below for participants and non-participants in each province. The total number of responses for each group is indicated and arranged in descending order. Other, nongroupable, responses of lesser frequency are also tabulated. As respondents often indicated more than one factor, it is the frequency of the response or group of responses that is considered significant.

### 11.1 New Brunswick Participants

1. Financial incentives, available financing, government help, financial assistance, flow-through shares (16) and, tax incentives. (52)

2. Base line geologic work by government, good geologic data base, studies to aid precious metals exploration, mapping based on economic potential, regional geochemical and geophysical surveys, regional mapping on appropriate scale, metallogenic studies, mineral deposit data base and industrial mineral research. (27)

3. No comment. (24)

4. Workable legislation, reformed legislation, more favorable legislation, map staking, limit number of claims, accept compilations as work requirements, and a separate mines department. (17)

5. More government support and cooperation, reduced bureaucracy, too much red tape, too many forms and too many permits. (9)

6. Promotion and increased profile of industry. (9)

7. More available information and more information on current government and industry activities. (5)

8. Increase in base metal prices, improved market demand and prices and better developed markets. (5)

9. Quality targets and better geologic potential. (5)

10. Training of prospectors and more assistance to prospectors from government economic geologists. (4)

11. Government funded metallurgical research, metallurgical investigations and new metallurgical technology. (4)

12. Better access to information and files, and better dissemination of data. (4)

13. Alleviate entry problems to mineral lands, mineral lands accessibility. (4)

14. Sensitive tax legislation and improved tax legislation. (4)

15. Very good in New Brunswick now and doing a good job now. (4)

16. More opportunities, quality exploration proposal and property submissions. (3)

17. Stock exchange and provincial stock plan. (3)

18. Available services and better availability of services. (3)
19. New finds, viable operations and major discoveries. (3)

In addition, there were two responses for more timely geologic reports from government. Finally, there was one response for each of the following factors: lower power rates, computerized geologic data, satellite imagery data, more information on federal-provincial mineral development agreements, better public attitudes and the availability of more New Brunswick geologic data on the West Coast.

### 11.1.1 General Discussion of Data

The importance of financial assistance and tax incentives, and the need for more government sponsored geologic data collection is evident with responses totalling 52 and 27 respectively. The 16 responses favoring flow-through financing, although substantial, may be somewhat misleading. Responses of government tax incentives, etc., could conceivably include concerns about flow-through financing. Workable and more favorable legislation was cited a total of 17 times. The need for more government cooperation and support, and for promotion of the industry were each cited nine times. The remaining factors or groups of factors were cited five times or less.

Financial considerations rank higher by those responding to what is required to enhance exploration and/or development than similar considerations do in the previous question regarding the

factors influencing the respondents participation or non-participation. The opposite is true with respect to geologic potential and company objectives which rank high in importance among factors influencing participation and non-participation respectively. This reflects the fundamental difference in the two questions. Financial considerations appear be more important in terms of future, continuing activity. The participants seem to be implying that geologic potential is the dominant reason why they are involved in the province, but that financial considerations need to be addressed for them to either maintain or expand their current level of activity. Geologic potential and company objectives may also have been regarded, at least to some extent, as uncontrollable aspects by respondents to the open question on enhancement. Whereas, on the other hand, financial considerations are controllable in that changes can be more readily initiated.

### 11.2 New Brunswick Non-Participants

1. Financial incentives, available financing, tax incentives, government incentives, flow-through shares (23) exploration incentives and government help. (92)

2. No comment. (58)

3. Properties of merit, good projects happening, economic gold deposits, more success, more discoveries, viable operations and proven ore reserves. (50)

4. Promotion and public relations. (31)

5. Awareness of geologic potential, environments, etc. (28)

6. Good data base, more geologic information, more geologic publications, more mapping, more information on geologic potential, mineralogic and metallogenic studies, mineral deposits data base and more conferences. (26)

7. More information on current government and industry activities. (25)

8. More information on interesting properties, mineral availability, more developed opportunities and availability of good properties. (16)

9. Good exploration proposals and property submissions. (14)

10. Doing a good job in New Brunswick now. (12)

11. Reduction of costs of operating from the West Coast, comparisons with West Coast geology and the availability of more New Brunswick geologic data on the West Coast. (12)

12. Tax law improvements and clarification of tax laws. (6)

13. Encouragement by government, committment to mining and encourage local involvement. (4)

14. Favorable legislation and procedures, improved work credits and map staking. (4)

15. Local stock exchange. (4)

16. Improved markets and prices. (3)

17. Improved local services. (3)

18. Better information on past activities and better historic data presentation. (3)

19. Public attitude changes and reduced environmental requirements. (2)

20. More geologic potential and more activity. (2)

There was also one response for each of the following: lack of information on the federal-provincial mineral development agreement, a combined New Brunswick - Nova Scotia review of

activities, increase in the exchange of information between government and industry, changes in company objectives, involvement of world class mining companies, better land access, more cost effectiveness, historically not as good as northern Ontario and government involvement will not help.

### 11.2.1 General Discussion of Data

The degree of importance of the above responses may be categorized on the basis of the frequency of similar responses. Financial considerations are apparently the most important, followed by the need for more discoveries and viable mining operations. Promotion, awareness of geologic potential, the need for government sponsored collection of geologic data, and more information on current activities form the next category of most frequent response. More development opportunities and availability of good properties, doing a good job now, and exploration proposals form the last significant category of responses. Many of these observations reflect a general lack of awareness by non-participant respondents of the actual status of the industry in the province.

As previously discussed, the number of responses for flow-through financing could conceivably be augmented by the inclusion of such factors as government help, tax incentives, etc. Similarly, combining groups such as the need for more discoveries, etc., and for more developed opportunities, etc., would

result in higher response numbers for factors of extended groupings.

**11.3 Response Comparison - Participants and Non-Participants**

Comparison of responses from participants and non-participants in exploration and/or development in New Brunswick, although only a few groupings are identical, shows both similarities and differences. For instance, financial considerations and the need for government generated geologic data were important to both types of respondents. The latter being of particular importance to the participants. Participants also thought that such factors as legislative changes, etc., and government support, etc., were important. On the other hand, non-participants gave greater value to the need for new discoveries, etc., promotion, etc., and information of current activities, etc.

The above described differences are believed to reflect the fact that the participants are more knowledgeable of the geologic data base, geologic potential, procedures, activities, etc., having operated in the province. The non-participants greater interest in geologic potential, promotion and current activities, etc. possibly reflects less exposure to New Brunswick than is the case with those who have or are participating in exploration and/or development there.

## 12.0 THE DECISION TO EXPLORE AND DEVELOP IN NOVA SCOTIA

Table XIV summarizes the statistical data for those respondents who have participated or are participating in exploration and/or development in Nova Scotia. Interpretation of average, standard deviation, per cent rating response and cluster analysis follow.

### 12.1 Average Response (grouped and ranked)

Very Important
1. geologic potential

Moderately Important
1. favorable legislation
2. target access
3. other
4. access to files
5. government cooperation
6. cost effectiveness
7. geologic data base
8. market access
9. available financing
10. similar to other productive environments
11. existing facilities
12. available services
13. tax regime
14. mineral development agreement generated data
15. activities of others
16. incentives
17. new product demand
18. new technology
19. proposals

### 12.2 General Discussion of Data

The high rank exhibited by such factors as geologic potential, favorable legislation and target access is understandable considering their importance in exploration and/or development. However, the relatively low rank of factors such as available financing, incentives, tax regime, activities of others and

**Table XIV Factors Influencing Participation in Nova Scotia**

| Factor | Ave. | Std. Dev. | RATING (% RESPONSE) No Importance 0 | 1 | 2 | 3 | 4 | 5 | Very Important 6 | Total |
|---|---|---|---|---|---|---|---|---|---|---|
| Geologic Potential | 5.14 | 1.09 | 0.00 | 0.83 | 0.00 | 9.92 | 14.05 | 23.97 | 51.24 | 100.00 |
| Geologic Data Base | 3.79 | 1.46 | 4.26 | 1.06 | 9.57 | 28.72 | 22.34 | 21.28 | 12.77 | 100.00 |
| MDA Generated Data | 3.16 | 1.65 | 9.89 | 6.59 | 10.99 | 31.87 | 19.78 | 12.09 | 8.79 | 100.00 |
| Access to Files | 4.27 | 1.64 | 4.35 | 2.17 | 6.52 | 18.48 | 16.30 | 21.74 | 30.43 | 100.00 |
| Like other Environment | 3.60 | 1.72 | 6.67 | 3.33 | 15.56 | 24.44 | 15.56 | 16.67 | 17.78 | 100.00 |
| Activities of Others | 3.05 | 1.60 | 6.93 | 9.90 | 17.82 | 28.71 | 19.80 | 6.93 | 9.90 | 100.00 |
| Proposals | 2.15 | 1.76 | 24.42 | 15.12 | 18.60 | 20.93 | 10.47 | 4.65 | 5.81 | 100.00 |
| Available Financing | 3.63 | 2.15 | 12.50 | 9.09 | 10.23 | 14.77 | 10.23 | 11.36 | 31.82 | 100.00 |
| Incentives | 2.49 | 2.00 | 27.06 | 7.06 | 15.29 | 20.00 | 11.76 | 8.24 | 10.59 | 100.00 |
| Tax Regime | 3.38 | 2.13 | 16.09 | 6.90 | 10.34 | 18.39 | 11.49 | 11.49 | 25.29 | 100.00 |
| Cost Effectiveness | 4.00 | 1.73 | 5.95 | 2.38 | 8.33 | 22.62 | 19.05 | 13.10 | 28.57 | 100.00 |
| Favorable Legislation | 4.38 | 1.65 | 4.40 | 1.10 | 7.69 | 15.38 | 17.58 | 17.58 | 36.26 | 100.00 |
| Government Cooperation | 4.18 | 1.79 | 6.52 | 3.26 | 8.70 | 11.96 | 16.30 | 22.83 | 30.43 | 100.00 |
| Target Access | 4.35 | 1.50 | 2.15 | 3.23 | 4.30 | 19.35 | 17.20 | 25.81 | 27.96 | 100.00 |
| Market Access | 3.75 | 1.86 | 6.90 | 8.05 | 10.34 | 17.24 | 16.09 | 18.39 | 22.99 | 100.00 |
| Available services | 3.48 | 1.63 | 6.90 | 4.60 | 10.34 | 32.18 | 16.09 | 17.24 | 12.64 | 100.00 |
| Existing Facilities | 3.52 | 1.64 | 5.95 | 7.14 | 9.52 | 27.38 | 17.86 | 20.24 | 11.90 | 100.00 |
| New Product Demand | 2.35 | 2.07 | 28.24 | 15.29 | 8.24 | 22.35 | 4.71 | 9.41 | 11.76 | 100.00 |
| New Technology | 2.31 | 2.00 | 25.88 | 17.65 | 10.59 | 20.00 | 9.41 | 4.71 | 11.76 | 100.00 |
| Other | 4.31 | 2.20 | 15.38 | 0.00 | 0.00 | 23.08 | 0.00 | 7.69 | 53.85 | 100.00 |

mineral development agreement generated data is less readily understood, particularly in light of their usually perceived importance. The relatively greater importance of these latter factors is apparent in a question to be discussed later pertaining to the enhancement of exploration and development. Consequently, a possible explanation for the above lies in the fundamental difference between the two questions. The response to factors influencing participation is essentially one relating to a past decision. The question regarding enhancement addresses future requirements and what is important for future, continuing activity in the mining sector.

The relatively high rank of the "other" factor reflects the tendency of respondents to rate such factors in this manner. If they are deemed sufficiently significant for inclusion, they tend to be given a high rating. The "other" factors include flow-through shares, gold is where you find it and good services. These could be categorized with comparable listed factors such as tax incentives, geologic potential and available services.

The standard deviation is a measure of the variability of data distribution, and the average standard deviation of 1.76 implies considerable variability. Lower relative standard deviations denote higher agreement of response. For instance, the standard deviation of the factor geologic potential is 1.09, and that of available financing is 2.15. Consequently, respondents were

generally in closer agreement on the importance of geologic potential.

The per cent rating response tabulated in Table XIV provides data on the rating response distribution. A variety of distribution patterns are evident. The J-shaped pattern for geologic potential is an indication of the high degree of importance placed on this factor by the majority of respondents.

More or less symmetrical distributions are indicated in rating the importance of activities of others and mineral development agreement generated data. This indicates that such factors are moderately important to the majority of respondents, with the remainder more or less equally divided between these factors being very important or of little or no importance. Some partitioning of response ratings is exhibited by bimodal and multimodal distributions for such factors as proposals, tax regime, existing facilities, new product demand, new technology and "other". Therefore, these factors are important to certain sub-populations of respondents.

Varying degrees of negative skewness are apparent for some factors. The ratings at the important end of the scale received the most response for these factors. For instance, 56.39 per cent of the response to geologic data base was for ratings greater than three, whereas 14.89 per cent was for ratings less than three.

**12.3 Sub-Set Analysis - Respondent Type and Participation**

Sub-set analyses were performed to compare the average response to factors influencing participation in Nova Scotia by the different types of respondents to that of the total population. Company response averages approximate those of the total population. This is understandable as companies comprise the majority of all respondents.

Of the remaining types of respondents, some rating response averages for prospectors, consultant companies and entrepreneurs differ appreciably from those of the total population. Prospectors indicated a greater importance for such factors as available financing, incentives, tax regime, available services, new product demand and new technology. Consultant companies consideration of available services was less. Entrepreneurs generally considered factors relating to financing and government matters more important than did the total population. This, in a way, reveals the particular interest of the different types of respondents.

**12.4 Cluster Analysis**

Table XV illustrates the cluster analysis for factors influencing non-participation in exploration and/or development in Nova Scotia.

**Table XV Cluster Analyses - N. S. Participation Factors**

Predefined 5 Clusters

| Cluster | Frequency Response | Per Cent Response |
|---|---|---|
| 1 | 3 | 6.0 |
| 2 | 2 | 4.0 |
| 3 | 2 | 4.0 |
| 4 | 42 | 84.0 |
| 5 | 1 | 2.0 |

Predefined 10 Clusters

| Cluster | Frequency Response | Per Cent Response |
|---|---|---|
| 1 | 3 | 6.0 |
| 2 | 2 | 4.0 |
| 3 | 2 | 4.0 |
| 4 | 2 | 2.0 |
| 5 | 35 | 70.0 |
| 6 | 2 | 4.0 |
| 7 | 2 | 4.0 |
| 8 | 1 | 2.0 |
| 9 | 1 | 2.0 |
| 10 | 1 | 2.0 |

Similar responses were received from 84 and 70 per cent of the survey population with predefined cluster limits of 5 and 10 respectively. The respondents remain grouped in one cluster. There is, therefore, no significant partitioning of responses. The responses were similar despite varied economic and organization profiles.

## 13.0 THE DECISION NOT TO EXPLORE OR DEVELOP IN NOVA SCOTIA

Table XVI summarizes the statistical data for those respondents who have not participated or are not participating in exploration and/or development in Nova Scotia. Interpretation of the

**Table XVI Factors Influencing Non-Participation in Nova Scotia**

| Factor | Ave. | Std. Dev. | RATING (% RESPONSE) No Importance 0 | 1 | 2 | 3 | 4 | 5 | Very Important 6 | Total |
|---|---|---|---|---|---|---|---|---|---|---|
| Perceived Potential | 2.72 | 2.40 | 31.03 | 6.90 | 5.17 | 14.66 | 16.38 | 10.34 | 15.52 | 100.00 |
| Perceived Data Base | 2.73 | 2.45 | 32.06 | 3.82 | 7.63 | 13.74 | 19.08 | 6.11 | 17.56 | 100.00 |
| Lack Info re MDA Data | 3.08 | 2.25 | 25.42 | 5.93 | 5.93 | 14.41 | 15.25 | 12.71 | 20.34 | 100.00 |
| Historic Activities | 2.19 | 2.06 | 37.65 | 9.41 | 4.71 | 14.12 | 18.82 | 9.41 | 5.88 | 100.00 |
| Lack Info re Activities | 2.97 | 2.04 | 20.69 | 6.90 | 9.48 | 21.55 | 17.24 | 7.76 | 16.38 | 100.00 |
| Proposals | 3.70 | 2.09 | 14.04 | 3.51 | 9.65 | 17.54 | 12.28 | 12.28 | 30.70 | 100.00 |
| Company Objectives | 4.01 | 0.15 | 15.00 | 2.50 | 5.00 | 10.00 | 16.88 | 12.50 | 38.13 | 100.00 |
| Land Entry Difficulty | 1.89 | 1.88 | 39.79 | 8.60 | 7.53 | 27.96 | 3.23 | 8.60 | 4.30 | 100.00 |
| Moratoria | 1.01 | 1.69 | 64.38 | 10.96 | 2.74 | 15.07 | 0.00 | 1.37 | 5.48 | 100.00 |
| Metallurgical Problems | 0.77 | 1.31 | 66.23 | 12.99 | 6.50 | 9.09 | 3.90 | 0.00 | 1.30 | 100.00 |
| Environmental Problems | 1.51 | 1.82 | 47.50 | 10.00 | 13.75 | 16.25 | 3.75 | 2.50 | 6.25 | 100.00 |
| Public Attitudes | 1.41 | 1.76 | 50.00 | 11.25 | 8.75 | 20.00 | 2.50 | 2.50 | 5.00 | 100.00 |
| Lack of Financing | 2.93 | 2.16 | 22.73 | 7.58 | 10.61 | 18.94 | 11.36 | 9.85 | 18.94 | 100.00 |
| Lack of Stock Exchange | 1.09 | 1.89 | 66.67 | 11.11 | 0.00 | 8.64 | 2.47 | 4.94 | 6.17 | 100.00 |
| Area Competition | 2.67 | 2.52 | 37.18 | 10.26 | 2.56 | 7.69 | 7.69 | 10.26 | 24.36 | 100.00 |
| Unfavorable Tax Regime | 1.70 | 1.94 | 46.84 | 7.59 | 11.39 | 15.19 | 6.33 | 7.59 | 5.06 | 100.00 |
| Lack of Incentives | 2.46 | 2.28 | 36.47 | 7.06 | 5.88 | 15.29 | 11.76 | 7.06 | 16.47 | 100.00 |
| Unfavorable Legislation | 1.59 | 1.88 | 48.69 | 6.58 | 11.84 | 19.74 | 1.31 | 6.58 | 5.26 | 100.00 |
| Lack Gov't.Cooperation | 1.80 | 2.02 | 45.24 | 9.52 | 7.14 | 17.86 | 5.95 | 7.14 | 7.14 | 100.00 |
| Commodity Prices | 1.47 | 1.93 | 53.17 | 11.39 | 2.53 | 18.99 | 2.53 | 5.06 | 6.33 | 100.00 |
| Lack of Local Services | 1.11 | 1.55 | 56.58 | 13.16 | 6.58 | 17.11 | 2.63 | 1.32 | 2.63 | 100.00 |
| Lack of Personnel | 1.29 | 1.78 | 53.85 | 14.10 | 6.41 | 12.82 | 5.13 | 2.56 | 5.13 | 100.00 |
| Lack of Facilities | 1.35 | 1.91 | 55.13 | 14.10 | 3.85 | 12.82 | 2.56 | 5.13 | 6.41 | 100.00 |
| Other | 4.53 | 2.29 | 18.75 | 0.00 | 0.00 | 3.13 | 6.25 | 12.50 | 59.38 | 100.00 |

average, standard deviation, per cent rating response and cluster analysis follow.

## 13.1 Average Response (grouped and ranked)

Very Important
1. other

Moderately Important
1. company objectives
2. lack of proposals
3. lack of information re- MDA generated data
4. lack of information re- current activities
5. lack of financing
6. perceived data base
7. perceived geologic potential
8. area competition

Of little Importance
1. lack of incentives
2. historic activities
3. land entry difficulty
4. lack of government cooperation
5. unfavorable tax regime
6. unfavorable legislation
7. environmental problems
8. commodity prices
9. public attitudes
10. lack of facilities
11. lack of personnel
12. lack of local services
13. lack of stock exchange
14. moratoria
15. metallurgical problems.

## 13.2 General Discussion of Data

The high rank of the "other" factor is misleading in consideration of the total population. Of the 19 respondents who ranked this factor as very important, 47 per cent specified the distance and travel costs from their Vancouver base. Thus, discounting the "other" factor, and apart from company objectives, the above

ranking and categorization suggests a general unawareness of the conditions and events in Nova Scotia by non-participants. It is even conceivable that the company objectives factor may, in part, be a reflection of this general unawareness.

Financial considerations are ranked relatively low. An explanation for this may be, as was the case with participants in the province, that these are responses to past decisions, and as will be pointed out later, these considerations may be more significant in future decisions.

The average standard deviation of the ratings of all factors is 2.00 suggesting considerable variability of data distribution. The standard deviation of the ratings for each factor is close to that of the overall average. Consequently, high agreement as to the importance of any one factor is lacking in the response of non-participants in Nova Scotia.

The per cent rating response to company objectives, moratoria, metallurgical problems, lack of stock exchange and "other" show well defined peaks, and reflect considerable agreement among respondents in rating these factors. Other factors, show somewhat broader distributions. In some instances, these distributions are more level, others are somewhat multimodal. The latter factors such as lack of information regarding activities and area competition are, therefore, important to certain sub-populations of respondents.

**13.3 Sub-Set Analysis - Respondent Type and Non-Participation**

Sub-set analyses were performed to compare the average response to factors influencing non-participation in Nova Scotia by the different types of respondents to that of the total population. Company response averages are approximately those of the total population. This is understandable as companies comprise the majority of all respondents.

Of the remaining types of respondents, some rating response averages for prospectors, consultant companies and entrepreneurs differ appreciably from those of the total population. Prospectors indicated a greater importance for such factors as land entry difficulty, but surprising attached less importance to available financing, incentives, stock exchange, area competition and lack of local services. Individual consultants stressed lack of incentives, historic activities, public attitudes, environmental problems more, but gave less importance to proposals. Consultant companies consideration of historic activities, lack of information regarding activities, lack of incentives and area competition was less than that of the total population. Entrepreneurs generally considered factors relating to financing and government matters as being more important than the total population. These observations, in a general way, reveal the particular interest of the different types of respondents.

## 13.4 Cluster Analysis

Table XVII illustrates the cluster analysis for factors influencing non-participation in exploration and development in Nova Scotia.

**Table XVII Cluster Analyses - N. S. Non-Participation Factors**

Predefined 5 Clusters

| Cluster | Frequency Response | Per Cent Response |
|---|---|---|
| 1 | 2 | 5.0 |
| 2 | 33 | 82.5 |
| 3 | 2 | 5.0 |
| 4 | 1 | 2.5 |
| 5 | 2 | 5.0 |

Predefined 10 Clusters

| Cluster | Frequency Response | Per Cent Response |
|---|---|---|
| 1 | 1 | 2.5 |
| 2 | 8 | 20.0 |
| 3 | 19 | 47.5 |
| 4 | 2 | 5.0 |
| 5 | 1 | 2.5 |
| 6 | 1 | 2.5 |
| 7 | 1 | 2.5 |
| 8 | 1 | 2.5 |
| 9 | 4 | 10.0 |
| 10 | 2 | 5.0 |

The predefined cluster limit of 10 shows that non-participants cluster into two sub-groups, 2 and 3, containing 20.0 and 47.5 per cent respectively of the respondents to this question. Count distribution analyses indicate that sub-group 2 has a tendency to rank all factors to be of little or no importance. On the other hand, sub-group 3 ranks all the factors as moderately important. This seems to suggest that sub-group 2, or 20.0 per cent of those

responding to the question, has little or no interest in New Brunswick. This sub-group is one of inactive non-participants. Sub-group 3, comprising 47.5 per cent of those who responded to this question, has definite reasons for not participating. Sub-group 7 is one of active non-participants.

Further analysis has shown that the sub-groups do not differ for type of respondent or for commodity of interest. Also, in contrast to New Brunswick, the Nova Scotia sub-groups do not differ significantly in exploration budget size.

**13.5 Response Comparison - Participants and Non-Participants**

An examination of the overall rating of comparable factors for both participants and non-participants in Nova Scotia shows the following relationships. Geologic data base and tax regime each are of equal importance to both groups. Participants, however, consider geologic potential, favorable legislation, government support, available services and existing facilities more important than do non-participants. On the other hand, proposals, available financing, incentives, activities of others and mineral development agreement generated data are relatively more important to non-participants. This diversity of response could be a reflection of the participant's good working knowledge of Nova Scotia. This is in contrast to a general unawareness of the province's current status by non-participants.

## 14.0 ENHANCEMENT OF EXPLORATION AND DEVELOPMENT IN NOVA SCOTIA

Respondents were asked to list factors which, in their opinion, are required to enhance participation in exploration and/or development in Nova Scotia. Distinction must be made between the data presented in the following sections and in the previous section which pertain to factors which influenced the respondents participation or non-participation in Nova Scotia. It is the difference between what influenced their decision and what, in their opinion, is required to enhance exploration and/or development in these areas.

Similar responses to the enhancement question have been grouped and are tabulated below for participants and non-participants in each province. The total number of responses for each group is indicated and arranged in descending order. Other, nongroupable, responses of lesser frequency are also tabulated. As respondents often indicated more than one factor, it is the frequency of the response or group of responses that is considered significant.

### 14.1 Nova Scotia Participants

1. Available financing, government grants, government help, financial incentives, flow-though shares (15), tax incentives, and exploration incentives. (52)

2. Better land access, better accessibility to mineral lands, alleviate mineral lands entry problems, moratorium and clarification of surface versus mineral rights. (28)

3. No comment. (25)

4. Viable mining operations, new discoveries, world class deposits and success for current developments. (20)

5. Increase in geologic data base, mapping based on potential, regional mapping, grassroots studies, regional geochemical and geophysical surveys, metallogenic studies and mineral deposit data base. (19)

6. Improved government support, more committment to mining, government cooperation, no tendering of mineral properties by government, stable, consistent, aggressive government policies and a more practical approach to geologic studies. (16)

7. Changes in the Mines Act, less vague legislation, more favorable legislation, most of land tied up by a few operators, security of title and more equitable land acquisition. (13)

8. More data, more information, more information on current activities of both government and industry, and more geologic conferences. (9)

9. Improved public relations, more promotion, more publicity and public awareness. (8)

10. Doing a good job now, nothing more needed and continued government interest. (6)

11. Improved commodity markets and prices. (6)

12. Better access to information, files and government staff. (6)

13. Better geologic potential. (5)

14. Reasonable environmental standards and laws, closer ties between mines and environment departments and firm environmental production laws. (4)

15. Proper tax regime and more sensitive tax regime. (4)

In addition to the above suggestions, there were two responses for each of the following: timely government reports, improved public attitudes, available services, quality exploration proposals and property submissions, more controls on financing, independent evaluation of reserves for credibility, local stock

exchange, prospector education, more information available on the West Coast regarding Nova Scotia geology and increased information exchanges between government and industry.

There were also single responses regarding the following factors: government funded metallurgical studies, good assessment data maps, access to government facilities, more information on historic activities, develop models for gold deposition in environments other than Meguma, market research for industrial minerals, custom mill facilities, research on narrow vein mining, lower power costs and more knowledgeable government geologists.

### 14.1.1 General Discussion of Data

The above tabulation indicates that financial considerations is the most dominant group of factors cited to enhance exploration and/or development in Nova Scotia. The number of responses for flow-through financing (15) could conceivably be augmented by the inclusion of such factors as government help, tax incentives, etc. Alleviation of problems relating to entry upon mineral lands comprise the second highest number of responses. The need for viable mining operations, etc., government generated geologic data, etc., government cooperation and support, etc., and legislative changes, etc., comprise a third significant category with response frequencies of 13 to 20. Some importance was placed on such factors as information on current government and

industry activities, promotion, access to information and files, and current market demand and prices.

Financial considerations rank higher by those responding to what is required to enhance exploration and/or development than similar considerations do in the previous question regarding factors influencing the respondents' participation or non-participation. The opposite is true with respect to geologic potential and company objectives which rank high in importance among factors influencing participation and non-participation respectively. This reflects the fundamental difference in the two questions. Financial considerations appear be more important in terms of future, continuing activity. The participants seem to be implying that geologic potential is the dominant reason why they are involved in the province, but that financial considerations need to be addressed for them to either maintain or expand their current level of activity. Geologic potential and company objectives may also have been regarded, at least to some extent, as uncontrollable aspects by respondents to the open question on enhancement. Whereas, on the other hand, financial considerations are controllable in that changes can be more readily initiated.

### 14.2 Nova Scotia Non-Participants

1. Available financing, financial assistance, financial incentives, flow-through shares (24), government assistance and government help. (96)

2. No comment (65)

3. Properties of merit, viable operations, new discoveries, more development opportunities and proven ore reserves. (56)

4. Promotion, publicity, public awareness, public relations and advertising. (31)

5. Awareness of geologic potential and environments. (26)

6. More publication and mapping, good data base, publication which demonstrate economic potential, research, regional mapping, mineral deposits studies and regional geophysical and geochemical surveys. (24)

7. More information on the current activities of government and industry. (23)

8. Doing a good job now. (18)

9. More information on good properties, mineral availability, available properties and difficulty getting properties. (18)

10. Good exploration proposals and property submissions. (15)

11. Tax law improvement and tax laws sensitive to industry. (12)

12. Information on Nova Scotia geology available on the West Coast, comparisons with West Coast geology and minimize costs of operating from the West Coast. (7)

13. Encouragement by government, committment to mining, stable, consistent government policies and encouragement of local involvement. (6)

14. Deletion of map staking, improved work credits, changes in Mines Act, increase staking costs to make more land available and favorable legislation. (4)

15. Local stock exchange. (4)

16. More prospectors and prospector education. (3)

17. Improved market demand and prices. (2)

18. Improved mineral potential and more potential. (2)

19. Improved public attitudes and less environmental requirements. (2)

The following factors received only single mention: improved access to information, lack of information regarding data generated by federal-provincial mineral development agreements, involvement of world class companies, changes in company objectives, combined Nova Scotia - New Brunswick reviews of activity, better local services, availability of more historic data concerning production and more government involvement will not help.

### 14.2.1 General Discussion of Data

Again, the importance of factors pertaining to financial considerations and to a proven track record is demonstrated with response frequencies of 96 and 56 respectively. The number of responses for flow-through financing (24) could conceivably be augmented by the inclusion of such factors as government help, tax incentives, etc.

A general requirement for more geologic data and other information is suggested by frequencies of response ranging from 15 to 31 for factors including government generated geologic data, unawareness of potential, promotion, information on current activities, information on good properties and more quality exploration proposals. The remaining factors cited are apparently of much less significance.

### 14.3 Response Comparison - Participants and Non-Participants

A number of factors deemed necessary to enhance exploration and/or development in Nova Scotia were so considered by both participant and non-participants in the province. These include those factors which pertain to financial considerations, government generation of geologic data and viable mining operations. Participants generally expressed more concern for land entry, legislative matters, and government support and cooperation. Conversely, non-participants in exploration and/or development in the province expressed greater interest in such factors as promotion, awareness of potential, information regarding current activities and the need for quality exploration proposals. These contrasting responses possibly reflect the experience of the participants having operated in the province. On the other hand, the non-participants have not been similarly exposed to the province's procedures, activities, etc.,

## 15.0 RESPONSE COMPARISON - NEW BRUNSWICK AND NOVA SCOTIA

Few differences are evident with respect to the response to questions of a background nature as they pertain to New Brunswick and Nova Scotia. Similar response was obtained for both provinces with regard to time period of participation, type of work undertaken and types of work arrangements. Some differences are, however, apparent with respect to commodity of interest, number of participants in each province, and expenditures of different

time periods. More respondents were participating in Nova Scotia in 1987, and more companies spent in excess of $1,000,000 in Nova Scotia in 1987. There is more interest in base metals in New Brunswick, but less interest in gold and the industrial minerals.

Parallelism is also exhibited in the ranking of industry's response to factors influencing participation or non-participation in each province. Most differences are those of rank within the same category of importance.

For participants in New Brunswick such factors as geologic data base and similar to other productive environments rank higher. On the other hand, cost effectiveness ranks higher for participants in Nova Scotia. Non-participants in New Brunswick considered lack of proposals and company objectives more important than did their Nova Scotia counterparts. No factors were deemed more important to non-participants in Nova Scotia than to non-participants in New Brunswick.

Responses to the open question concerning what is required to enhance exploration and/or development in each province differed somewhat for each province. Yet, a comparison of the ranking of similar responses is possible. The need to improve the geologic data base ranks considerably higher in New Brunswick. Other factors such as the need for legislative and procedure changes, promotion and public relation also rank somewhat higher for New

Brunswick participants. Better land access ranks somewhat higher for Nova Scotia participants.

The ranking of response to the above question is remarkably similar for non-participants in each province. This tendency to to provide like responses may, in part, be attributed to non-participants lacking specific knowledge of either province.

## 16.0 CONCLUSIONS AND RECOMMENDATIONS

The survey provides a consensus insight from a national perspective on what influences both participation and non-participation in mining activities in New Brunswick and Nova Scotia. In addition, and perhaps equally important, it provides opinions regarding future enhancement of this activity.

For instance, the most dominant factor influencing participation in both provinces is that of geologic potential. Non-participants considered company objectives as the factor which most influenced their decision not to participate. Interestingly, both participants and non-participants judged financial considerations to be most important in terms of future enhancement of mining activity.

The above observations depict the difference between these two very significant questions. Participants are saying that geologic potential is the reason for their activity, but that

financial considerations must be addressed for them to continue or expand this activity. Non-participants, on the other hand, are saying that although company objectives are the reason for their lack of involvement, changes in company policy, etc., are possible with favorable financial aspects.

All the stated reasons which have influenced participation and/or development in each province indicate strengths which need continued consideration and, if possible, improvement. Conversely, all stated reasons for non-participation suggest weaknesses or deficiencies. Identification of the latter will facilitate remedial action. Knowledge of requirements for future enhancement of mining activities in each province will assist both in improvements to the current status and in other remedial action. The opinions and comments of both participants and non-participants must be addressed. Participants must be encouraged to continue or expand their present activity, whereas non-participants must be encouraged to become involved in each province.

Considerable parallelism is evident between the provinces in the response to most questions. The major difference in response to questions of general background information pertained to such factors as commodity of interest and level of expenditures.

Response to factors influencing participation or non-participation in either province differed only in overall ranking within

the same categories of importance. Similarly, there are few differences in what is required for future enhancement of mining activity in each province. Two issues which did receive somewhat different response pertain to the geologic data base in New Brunswick and mineral lands entry in Nova Scotia. These issues will be discussed in more detail later.

The similarity of response noted above makes collective discussion of the more important factors possible. However, mention should first be made of the factors which the response indicated to be of less importance. Factors such as available local services, market access, available facilities, cost effectiveness perceived environmental problems and commodities prices are less important generally than factors relating to financial, geological and governmental aspects. Of even lesser importance, are factors pertaining to new technology, new product demand, lack of stock exchange, public attitudes and perceived metallurgical problems. This does not necessarily imply that these factors can be completely ignored. Any one of these may be important in specific instances and, therefore, may require special consideration at some point in time.

Cluster analyses failed to show any significant partitioning of respondents into sub-groups despite their varied economic and organization profile. The conclusions reached for the total population may, therefore, be considered valid.

For discussion purposes, the factors considered important to all types of respondents have been grouped into categories and are tabulated below. The groupings include those factors which pertain to geological, financial, governmental and informational aspects.

Geological Factors

- geologic potential
- geologic data base
- similar to other productive environments
- availability of good properties and viable mining operations

Perhaps the most important factor in this group is geologic data base. The collection of more geologic data and the development of models for mineralized environments could favorably affect the other factors in the group. As a possible consequence of this, the geologic potential could be improved and favorable comparison with other productive environments would be possible. Any resulting exploration could give rise to the availability of good properties and, hopefully, viable mining operations.

The role of governments in the collection, publication and dissemination of geologic data is readily acknowledged. Therefore, it is essential that federal-provincial mineral development agreements or other similar arrangements be at least continued if not expanded.

Financial Factors

- available financing
- tax incentives
- flow-through share
- government financial assistance

Financial considerations are of paramount importance to all types of respondents, particularly for the future enhancement of exploration and/or development in both provinces. Response to what is required for the latter indicates somewhat stronger preference for financial incentives than for increased geologic data. This would seem to suggest that mineral development agreements should perhaps place more emphasis on financial incentives than is presently the case. Incentives specifically tailored to the needs of the region should be considered.

Flow-through shares alone comprise a large proportion of the response pertaining to financial aspects. It may also be implied that consideration given to such factors as tax incentives signifies comparable meaning and intent.

The mining industry has been concerned that the benefits of flow-through financing would be less attractive should federal tax reform reduce the Mineral Exploration Depletion Allowance from its present level of 33 1/3 per cent. This method of financing has provided over $2 billion for Canadian exploration over the past five years. Exploration has increased dramatically during this time resulting in many projects being at or near production

stage. Exploration and/or development in New Brunswick and Nova Scotia, as well, owe their present levels of activity to this type of financing. The economic spin-offs from these levels of activity, the positive effects it has on employment and benefits to communities near projects which are often in the more depressed parts of the provinces have been well documented.

A strong lobby by industry for the continuation of this program or equally attractive alternatives was addressed by the federal government through announcing the Canadian Exploration Incentive Program on May 3, 1988. This incentive program is to become effective January 1, 1989, and the Mineral Exploration Depletion Allowance is be extended at 33 1/3 per cent until December 31, 1988.

The proposed program will provide incentive payments of 30 per cent or up to $3 million annually for eligible exploration expenditures. This rate is to be in effect until December 31, 1990, after which the rate may be adjusted depending on the status of the industry at that time. It will be available to companies which raise funds on a flow-through basis using the existing flow-through mechanism.

As this survey was undertaken prior to the above announcement, industry's response to this new incentive program could not be obtained. This illustrates the observation that surveys of this

nature are generally only valid for a given point in time. However, published opinions to date have been generally supportive. Hopefully, the program will provide sufficient funding to allow exploration to proceed in New Brunswick and Nova Scotia at preferably increased rates. Other factors such as the lack of investor confidence since the October 1987 stock market crash and the reduction of the Capital Gains Tax exemption from $500,000 to $100,000 may, temporarily at least, curtail its effectiveness.

Governmental Factors

- financial assistance
- support and cooperation
- tax regime
- legislation and procedures

There is an obvious linkage between governmental factors and the financial and geologic considerations discussed above. Financial assistance through provincial or federal-provincial incentive programs should at least be maintained if not expanded. These would be in addition to the recently proposed federal Canadian Exploration Incentive Program. Also, provincial governments must ensure that their tax regimes are favorable and periodically re-examined and compared to other jurisdictions.

Governments must be strongly committed to and supportive of mining. They must cooperate with industry to ensure its success. Legislation and procedures must be such that the task of the industry is less onerous.

Informational Factors

- access to files
- promotion and public awareness
- information regarding activities of both government and industry
- information regarding good properties
- quality exploration proposals and property submissions

The consideration which these factors received suggest a general unawareness of what is being done and what is happening in both New Brunswick and Nova Scotia. Access to files is particularly important to both participants and non-participants in both provinces. Company objectives, one of the more common factors cited by non-participants in both provinces is included in this group. One of the ways that company objectives and policies may be changed is through knowledge gained by receipt of more information on who is doing what, in which province, and what results are being obtained.

It is recognized that both local administrations and local interest groups do some promoting of the industry, and provide some information on their and the industry's activities. Yet, the response to the survey suggest that more is required. The number of non-participants, 57.4 per cent of the respondents, represents a significant untapped source of exploration funds. It may be more a question of targeting specific companies, people and regions of Canada. Companies which only spent small percentages of their national budgets in New Brunswick and Nova Scotia should be candidates to do more work. They, at least,

have the resources to do so. Perhaps attempts should be made at reaching more of the decision-makers. For instance, it has been observed that, with the exception of locally based companies, relatively few exploration managers attend the provincial annual reviews of activities. It is also evident from the survey that those on the west coast of Canada were particularly unaware of what is happening in both provinces. Consequently, these respondents should possibly be targeted. Attempts to reach the entire industry at national conventions places provinces in direct competition with each other. Some of the effectiveness of this type of exposure may be lost, and additional means of exposure should be considered. The problem seems to be one of marketing with more aggressive, better targeted advertising needed. Concepts such as "dog and pony" shows in selected cities, used so successfully to create investor interest in specific projects, should perhaps be considered to create more industry interest in the provinces' mineral potential generally. Additionally, mailouts of information regarding financial incentives, geologic potential, etc., could be effective.

It was indicated earlier that two factors require specific and separate comment. These factors pertain to the geologic data base in New Brunswick and problems associated with entry to mineral lands in Nova Scotia. They constitute the most significantly different response to factors relating to each province.

Improvements to the geologic data base were rated by participants in New Brunswick as being second in importance to financial considerations among the required factors to enhance mineral exploration and/or development in that province. The importance of this factor is also demonstrated by the relatively higher rating it received from non-participants as well.

The suggestions made in the survey included the need for more base line geologic work, more studies to aid precious metal exploration, more mapping based on geologic potential, more regional geochemical and geophysical surveys, more regional mapping on appropriate scale, more industrial mineral research and the need for a better mineral deposits data base. There was one suggestion that less government airborne surveys, which are by necessity contracted outside the province, would mean more funds would be available for spending within the province.

An expressed need for improvements is evident. Consequently, careful consideration should be given to the fulfillment of the above suggestions.

The concern regarding difficulties in entry to mineral lands expressed by participants in Nova Scotia must be addressed. The comments pertaining to these difficulties included the need for better land access, the need for better accessibility to mineral lands, the need to alleviate mineral lands entry problems and the

need to clarify surface versus mineral rights.

Operators in other jurisdictions are usually not confronted with similar problems, consequently, Nova Scotia may be less attractive to them. Government should take immediate action to resolve or at least alleviate these problems. However, favorable results will only be achieved through the cooperation and goodwill of all involved parties.

The survey provides some indication that both New Brunswick and Nova Scotia are "doing a good job now" in fostering exploration and/ or development. In fact, many of the issues raised are currently being addressed by governments in particular. For instance, considerable geologic data is being generated through investigations being undertaken under federal-provincial mineral development agreements. Although the need for more of these types of investigations has been expressed, many responses have been influenced by a general unawareness of the actual events and activities in both provinces. This illustrates the need to address these false perceptions.

It is believed that the responsibility for improvements and remedial action concerning factors influencing participation or non-participation and the future enhancement of mining activities in either New Brunswick or Nova Scotia should be shared. Governments will perhaps have to share the bulk of this burden, and

address such factors as geologic data collection, financial considerations, legislative and procedural changes, government support and government cooperation. However, there must be cooperation between government and industry. Input from industry is important. Industry can contribute to such things as, for example, a better geologic data base by submitting quality assessment reports.

Prospectors, consultants, entrepreneurs, etc., can contribute through offering better services, and providing better quality exploration proposals and property submissions. All those involved in the industry, including special interest groups, can contribute to the promotion of the industry in both New Brunswick and Nova Scotia. The funding of this survey by governments and industry's participation in it demonstrate interest by all involved.

In summary, the survey has provided information regarding what is required for continuing and/or expanding mineral exploration and/or development in New Brunswick and Nova Scotia. It now rests with all involved to undertake the required improvements and remedial action, thus ensuring the flourishing of the industry in both provinces.

## 17.0 APPENDIX I - Mailed Questionnaire

**Questionnaire**
**Industry Attitudes Toward**
**Mineral Exploration and Development in**
**New Brunswick and Nova Scotia**

John A. Leslie and Associates Ltd.
Canmac Economics Ltd.

**Questionnaire Purpose:**

The purpose of this questionnaire is to survey mining interests in order to determine their attitudes toward exploration and/or development opportunities in New Brunswick and Nova Scotia, and to analyze the survey results with the aim of suggesting remedial actions for government and others to enhance the competitiveness of the region in this field. Please complete the questionnaire - your input is very important. Be assured that all data entered on the following survey will be held in strict confidentiality and used in aggregate form only. Please return this survey to: P. O. Box 193, Bedford, Nova Scotia, B4A 2X2 by no later than November 20, 1987.

**Section I**
**Identification**

1. Name and title of respondent if different than shown.

Name: _____
Title: _____
Telephone Number: _____

**Section II**
**Background Information**

1. Listed below are some basic classifications for organizations involved in mineral exploration and/or development. Please indicate which classification is most descriptive of your organization. (Check one only)

Resource Company _____
Prospector _____
Individual Consultant _____
Consultant Company _____
Entrepreneur _____
Other _____ **(Please Specify)** _____
_____

Section II continued

2. Please indicate commodity(s) in which your organization has a current Canadian exploration and/or development interest. (Check appropriate category[s])

Base Metals _____
Precious Metals _____
Tin, Tungsten, Molybdenum _____
Uranium _____
Iron, Manganese _____
Industrial Minerals (Please Specify) _____
_____
_____
Other (Please Specify) _____
_____

3. Please indicate your current (budgeted amount for fiscal year 1987) level of expenditures (included only expenditures made on own behalf) for exploration and/or development in all of Canada. (Check appropriate category)

$ 1 - 50,000 _____
$ 50,000 - 100,000 _____
$100,000 - 500,000 _____
$500,000 - 1,000,000 _____
$1,000,000 plus _____ ( )
(If more than $1 million
please specify approximate amount in brackets)

**Section III**
**Participation**

1. Have you or your organization ever undertaken mineral exploration and/or development in New Brunswick or Nova Scotia? (Check appropriate response[s])

A) New Brunswick Yes _____ No _____
B) Nova Scotia Yes _____ No _____

2. If you answered "yes" in either question 1A) or 1B) above please indicate the time periods involved in exploration and/or development activity and the applicable province. (Check appropriate response[s])

| | **New Brunswick** | **Nova Scotia** |
|---|---|---|
| 1987 | _____ | _____ |
| 1982 - 1986 | _____ | _____ |
| 1977 - 1981 | _____ | _____ |
| Prior to 1977 | _____ | _____ |

**IMPORTANT NOTE:** If you or your organization have undertaken mineral exploration and/or development in both New Brunswick and Nova Scotia (i.e., answered "yes" in both Section III, question 1A) and question 1B) please complete only Section IV.

If you or your organization have undertaken mineral exploration in either New Brunswick or Nova Scotia but not in both provinces (i.e., answered Section III, question 1 with one "yes"and one "no" please complete both Section IV and Section V.

If your or your organization have not undertaken mineral exploration and/or development in New Brunswick or Nova Scotia (i.e., answered "no" to both Section III, question 1A) and question 1B) please complete only Section V.

## Section IV

**To be answered by those answering "yes" to Section III, question 1A) and/or 1B)**

1. Please indicate the type of work you or your organization have undertaken in New Brunswick and/or Nova Scotia. (Check appropriate category[s] below)

| | | New Brunswick | Nova Scotia |
|---|---|---|---|
| A) | Desk studies of geological potential | ____ | ____ |
| B) | Reconnaissance field surveys | ____ | ____ |
| C) | Grassroots property evaluation | ____ | ____ |
| D) | Detailed evaluation of exploration target(s) delineated by own efforts | ____ | ____ |
| E) | Detailed evaluation of exploration target(s) delineated by others | ____ | ____ |
| F) | Development | ____ | ____ |
| G) | Production | | |
| H) | Other, specific studies, market studies, etc. specify below) | | |
| | _____ | ____ | ____ |

Section IV continued

2. Please indicate the commodity(s) your organization has been involved with in exploration and/or development activity and the applicable province. (Check appropriate category[s])

| | New Brunswick | Nova Scotia |
|---|---|---|
| Base metals | ____ | ____ |
| Precious metals | ____ | ____ |
| Tin, Tungsten, Molybdenum | ____ | ____ |
| Uranium | ____ | ____ |
| Iron, Manganese | ____ | ____ |
| Industrial minerals, (please specify) | | |
| _____ | ____ | ____ |
| _____ | ____ | ____ |
| Other, (please specify) | | |
| _____ | ____ | ____ |

3. Indicate, where applicable, the level of expenditures (include only expenditures made on own behalf) for the specified time periods and province shown. (Check appropriate response[s])

**New Brunswick**

| Expenditures | 1987* | 1982-1986 | 1977-1981 | Prior to 1977 |
|---|---|---|---|---|
| $1 - 50,000 | ____ | ____ | ____ | ____ |
| $ 50,000 - 100,000 | ____ | ____ | ____ | ____ |
| $100,000 - 500,000 | ____ | ____ | ____ | ____ |
| $500,000 - 1,000,000 | ____ | ____ | ____ | ____ |
| $1,000,000 plus | | | | |
| (If over $1 million specify approximate amount in brackets) | (____) | (____) | (____) | (____) |

* - fiscal year budgeted amount

**Nova Scotia**

| Expenditures | 1987* | 1982-1986 | 1977-1981 | Prior to 1977 |
|---|---|---|---|---|
| $1 - 50,000 | ____ | ____ | ____ | ____ |
| $ 50,000 - 100,000 | ____ | ____ | ____ | ____ |
| $100,000 - 500,000 | ____ | ____ | ____ | ____ |
| $500,000 - 1,000,000 | ____ | ____ | ____ | ____ |
| $1,000,000 plus | | | | |
| (If over $1 million specify approximate amount in brackets) | (____) | (____) | (____) | (____) |

* - fiscal year budgeted amount

Section IV continued

4A. Have you or will you be filing exploration and/or development data from activity specified above with appropriate provincial department for assessment purposes?

New Brunswick Yes _____ No _____
Nova Scotia Yes _____ No _____

4B. Have you or will you be reporting exploration and/or development expenditures from the above to appropriate department for statistical purposes?

New Brunswick Yes _____ No _____
Nova Scotia Yes _____ No _____

5. Please indicate what percentage of work done in current period (1987) is being conducted under the following work arrangements. (Indicate percentage in the space provided, making sure the total equals 100%)

| Work Arrangement | **New Brunswick** Percentage | **Nova Scotia** Percentage |
|---|---|---|
| Alone (on solely owned mineral property) | _____% | _____% |
| Joint venture | _____% | _____% |
| Under option agreement | _____% | _____% |
| Other (specify below) | | |
| _____ | _____% | _____% |
| _____ | _____% | _____% |
| Total | 100 % | 100 % |

6. Please rate the following factors in terms of their importance in influencing your **participation** in exploration and/or development in New Brunswick (N.B.) and/or Nova Scotia (N.S.) (6 - very important, 3 - moderately important, 0 - no importance). **Indicate by circling the appropriate rating.** Note: If participation has been in both N.B. and N.S. be sure to include a rating for each province.

| | | **Rating** | | | | | | |
|---|---|---|---|---|---|---|---|---|
| | | No Importance | | | | | Very Important | |
| Geologic Potential | N.B. | 0 | 1 | 2 | 3 | 4 | 5 | 6 |
| | N.S. | 0 | 1 | 2 | 3 | 4 | 5 | 6 |
| Geologic Data Base | N.B. | 0 | 1 | 2 | 3 | 4 | 5 | 6 |
| | N.S. | 0 | 1 | 2 | 3 | 4 | 5 | 6 |

Section IV continued

| | | Rating | | | | | | |
|---|---|---|---|---|---|---|---|---|
| | | No Importance | | | | | Very Important | |
| Data generated by Fed./Prov. mineral development agreements | N.B. | 0 | 1 | 2 | 3 | 4 | 5 | 6 |
| | N.S. | 0 | 1 | 2 | 3 | 4 | 5 | 6 |
| Access to government files | N.B. | 0 | 1 | 2 | 3 | 4 | 5 | 6 |
| | N.S. | 0 | 1 | 2 | 3 | 4 | 5 | 6 |
| Similar productive geologic environment elsewhere | N.B. | 0 | 1 | 2 | 3 | 4 | 5 | 6 |
| | N.S. | 0 | 1 | 2 | 3 | 4 | 5 | 6 |
| Activities of other mining interests | N.B. | 0 | 1 | 2 | 3 | 4 | 5 | 6 |
| | N.S. | 0 | 1 | 2 | 3 | 4 | 5 | 6 |
| Outside proposals or submissions (including gov't. tendered properties) | N.B. | 0 | 1 | 2 | 3 | 4 | 5 | 6 |
| | N.S. | 0 | 1 | 2 | 3 | 4 | 5 | 6 |
| Available financing | N.B. | 0 | 1 | 2 | 3 | 4 | 5 | 6 |
| | N.S. | 0 | 1 | 2 | 3 | 4 | 5 | 6 |
| Specific financial incentives | N.B. | 0 | 1 | 2 | 3 | 4 | 5 | 6 |
| | N.S. | 0 | 1 | 2 | 3 | 4 | 5 | 6 |
| Tax regime | N.B. | 0 | 1 | 2 | 3 | 4 | 5 | 6 |
| | N.S. | 0 | 1 | 2 | 3 | 4 | 5 | 6 |
| Cost effectiveness | N.B. | 0 | 1 | 2 | 3 | 4 | 5 | 6 |
| | N.S. | 0 | 1 | 2 | 3 | 4 | 5 | 6 |
| Favorable mining legislation and procedures | N.B. | 0 | 1 | 2 | 3 | 4 | 5 | 6 |
| | N.S. | 0 | 1 | 2 | 3 | 4 | 5 | 6 |
| Government cooperation and encouragement | N.B. | 0 | 1 | 2 | 3 | 4 | 5 | 6 |
| | N.S. | 0 | 1 | 2 | 3 | 4 | 5 | 6 |
| Target accessibility | N.B. | 0 | 1 | 2 | 3 | 4 | 5 | 6 |
| | N.S. | 0 | 1 | 2 | 3 | 4 | 5 | 6 |
| Market accessibility | N.B. | 0 | 1 | 2 | 3 | 4 | 5 | 6 |
| | N.S. | 0 | 1 | 2 | 3 | 4 | 5 | 6 |
| Available services | N.B. | 0 | 1 | 2 | 3 | 4 | 5 | 6 |
| | N.S. | 0 | 1 | 2 | 3 | 4 | 5 | 6 |

Section IV continued

| | | Rating | | | | | | |
|---|---|---|---|---|---|---|---|---|
| | | No Importance | | | | | Very Important | |
| Existing infrastructure and facilities | N.B. | 0 | 1 | 2 | 3 | 4 | 5 | 6 |
| | N.S. | 0 | 1 | 2 | 3 | 4 | 5 | 6 |
| New product demand | N.B. | 0 | 1 | 2 | 3 | 4 | 5 | 6 |
| | N.S. | 0 | 1 | 2 | 3 | 4 | 5 | 6 |
| New technology | N.B. | 0 | 1 | 2 | 3 | 4 | 5 | 6 |
| | N.S. | 0 | 1 | 2 | 3 | 4 | 5 | 6 |
| Other (specify and rate) _____ | N.B. | 0 | 1 | 2 | 3 | 4 | 5 | 6 |
| | N.S. | 0 | 1 | 2 | 3 | 4 | 5 | 6 |

7A. Please list (in order of importance) factors which in your opinion are required to enhance and/or increase exploration and/or development in New Brunswick.

1. _____
2. _____
3. _____
4. _____
5. _____
6. _____

7B. Please list (in order of importance) factors which in your opinion are required to enhance and/or increase exploration and/or development in Nova Scotia.

1. _____
2. _____
3. _____
4. _____
5. _____
6. _____

## Section V

**To be completed by those answering "no" to Section III, question 1A) and/or 1B)**

1. Please indicate the type of work usually undertaken by your organization. (Check appropriate category[s] below)

a) Desk studies of geological potential _____
B) Reconnaissance field surveys _____
C) Grassroots property evaluation _____
D) Detailed evaluation of exploration target(s) delineated by own efforts _____
E) Detailed evaluation of exploration target(s) delineated by others _____
F) Development _____
G) Production _____
H) Other, specific studies, market studies, etc. specify below)

_____ _____

2. Please indicate what percentage of work done in current period (1987) is being conducted under the following work arrangements. (Indicate percentage in the space provided, making sure the total equals 100%)

| Work Arrangement | |
|---|---|
| Alone (on solely owned mineral property) | ____% |
| Joint venture | ____% |
| Under option agreement | ____% |
| Other (specify below) | |
| _____ | ____% |
| _____ | ____% |
| Total | 100 % |

3. Please rate the following factors in terms of their importance in influencing your **non-participation** in exploration and/or development in New Brunswick (N.B.) and/or Nova Scotia (N.S.) (6 - very important, 3 - moderately important, 0 - no importance). **Indicate by circling the appropriate rating**. Note: If you have not participated in either N.B. and N.S. be sure to include a rating for each province.

Section V continued

| | | Rating | | | | | | |
|---|---|---|---|---|---|---|---|---|
| | | No Importance | | | | Very Important | | |
| Perceived geologic potential | N.B. | 0 | 1 | 2 | 3 | 4 | 5 | 6 |
| | N.S. | 0 | 1 | 2 | 3 | 4 | 5 | 6 |
| Perceived geologic Data Base | N.B. | 0 | 1 | 2 | 3 | 4 | 5 | 6 |
| | N.S. | 0 | 1 | 2 | 3 | 4 | 5 | 6 |
| Lack of information regarding data generated by Fed./Prov. agreements | N.B. | 0 | 1 | 2 | 3 | 4 | 5 | 6 |
| | N.S. | 0 | 1 | 2 | 3 | 4 | 5 | 6 |
| Historic activities of other mining interests | N.B. | 0 | 1 | 2 | 3 | 4 | 5 | 6 |
| | N.S. | 0 | 1 | 2 | 3 | 4 | 5 | 6 |
| Lack of information regarding current activity | N.B. | 0 | 1 | 2 | 3 | 4 | 5 | 6 |
| | N.S. | 0 | 1 | 2 | 3 | 4 | 5 | 6 |
| Lack of property submissions | N.B. | 0 | 1 | 2 | 3 | 4 | 5 | 6 |
| | N.S. | 0 | 1 | 2 | 3 | 4 | 5 | 6 |
| Company objectives | N.B. | 0 | 1 | 2 | 3 | 4 | 5 | 6 |
| | N.S. | 0 | 1 | 2 | 3 | 4 | 5 | 6 |
| Perceived difficulty of entry upon mineral lands | N.B. | 0 | 1 | 2 | 3 | 4 | 5 | 6 |
| | N.S. | 0 | 1 | 2 | 3 | 4 | 5 | 6 |
| Moratoria | N.B. | 0 | 1 | 2 | 3 | 4 | 5 | 6 |
| | N.S. | 0 | 1 | 2 | 3 | 4 | 5 | 6 |
| Perceived metallurgical problems | N.B. | 0 | 1 | 2 | 3 | 4 | 5 | 6 |
| | N.S. | 0 | 1 | 2 | 3 | 4 | 5 | 6 |
| Perceived environmental problems | N.B. | 0 | 1 | 2 | 3 | 4 | 5 | 6 |
| | N.S. | 0 | 1 | 2 | 3 | 4 | 5 | 6 |
| Perceived public attitudes toward mining | N.B. | 0 | 1 | 2 | 3 | 4 | 5 | 6 |
| | N.S. | 0 | 1 | 2 | 3 | 4 | 5 | 6 |
| Lack of necessary financing | N.B. | 0 | 1 | 2 | 3 | 4 | 5 | 6 |
| | N.S. | 0 | 1 | 2 | 3 | 4 | 5 | 6 |
| Lack of local stock exchange encouragement | N.B. | 0 | 1 | 2 | 3 | 4 | 5 | 6 |
| | N.S. | 0 | 1 | 2 | 3 | 4 | 5 | 6 |
| Area competition for exploration dollars | N.B. | 0 | 1 | 2 | 3 | 4 | 5 | 6 |
| | N.S. | 0 | 1 | 2 | 3 | 4 | 5 | 6 |

Section V continued

| | | Rating | | | | | | |
|---|---|---|---|---|---|---|---|---|
| | | No Importance | | | | | Very Important | |
| Unfavorable tax regime | N.B. | 0 | 1 | 2 | 3 | 4 | 5 | 6 |
| | N.S. | 0 | 1 | 2 | 3 | 4 | 5 | 6 |
| Lack of specific financial incentives | N.B. | 0 | 1 | 2 | 3 | 4 | 5 | 6 |
| | N.S. | 0 | 1 | 2 | 3 | 4 | 5 | 6 |
| Unfavorable mining legislation and procedures | N.B. | 0 | 1 | 2 | 3 | 4 | 5 | 6 |
| | N.S. | 0 | 1 | 2 | 3 | 4 | 5 | 6 |
| Lack of government cooperation and encouragement | N.B. | 0 | 1 | 2 | 3 | 4 | 5 | 6 |
| | N.S. | 0 | 1 | 2 | 3 | 4 | 5 | 6 |
| Level of commodity prices | N.B. | 0 | 1 | 2 | 3 | 4 | 5 | 6 |
| | N.S. | 0 | 1 | 2 | 3 | 4 | 5 | 6 |
| Lack of local services | N.B. | 0 | 1 | 2 | 3 | 4 | 5 | 6 |
| | N.S. | 0 | 1 | 2 | 3 | 4 | 5 | 6 |
| Lack of field personnel | N.B. | 0 | 1 | 2 | 3 | 4 | 5 | 6 |
| | N.S. | 0 | 1 | 2 | 3 | 4 | 5 | 6 |
| Lack of infrastructure and facilities | N.B. | 0 | 1 | 2 | 3 | 4 | 5 | 6 |
| | N.S. | 0 | 1 | 2 | 3 | 4 | 5 | 6 |
| Other (specify and rate) _____ | N.B. | 0 | 1 | 2 | 3 | 4 | 5 | 6 |
| | N.S. | 0 | 1 | 2 | 3 | 4 | 5 | 6 |

4A. Please list (in order of importance) factors which in your opinion are required to enhance and/or increase exploration and/or development in New Brunswick.

1. _____
2. _____
3. _____
4. _____
5. _____
6. _____

Section V continued

4B. Please list (in order of importance) factors which in your opinion are required to enhance and/or increase exploration and/or development in Nova Scotia.

1. _____
2. _____
3. _____
4. _____
5. _____
6. _____

5) Would you be willing to participate in a personal interview?
Yes _____ No _____

**Thank you for taking the time to complete this questionnaire.**

## 18.0 APPENDIX II - Telephone Questionnaire

### TELEPHONE QUESTIONNAIRE

I. **IDENTIFICATION**

Name: _____ Telephone: _____
Category: _____

II. **PARTICIPATION**

Have you undertaken exploration and/or development in
New Brunswick Yes: _____ When: _____ No: _____
Nova Scotia Yes: _____ When: _____ No: _____

III. **COMMODITY(S) OF INTEREST**

| | Canada | N.B. | N.S. |
|---|---|---|---|
| Base metals | _____ | _____ | _____ |
| Precious metals | _____ | _____ | _____ |
| Tin, Tungsten, molybdenum | _____ | _____ | _____ |
| Iron, Manganese | _____ | _____ | _____ |
| Uranium | _____ | _____ | _____ |
| Industrial Minerals | _____ | _____ | _____ |

IV **TYPE OF WORK**

| Desk Studies | Canada | N.B. | N.S. |
|---|---|---|---|
| Regional reconnaissance | _____ | _____ | _____ |
| Grassroots property work | _____ | _____ | _____ |
| Detailed evaluation of targets delineated by self | _____ | _____ | _____ |
| Detailed evaluation of targets delineated by others | _____ | _____ | _____ |
| Development | _____ | _____ | _____ |
| Production | _____ | _____ | _____ |
| Other | _____ | _____ | _____ |

V. **FACTORS INFLUENCING PARTICIPATION/NON-PARTICIPATION**

What factors influenced your participation in exploration and/or development in New Brunswick? Rate in importance from 0 to 6.

_____
_____
_____
_____

**APPENDIX II continued**

What factors influenced your participation in exploration and/or development in Nova Scotia? Rate in importance from 0 to 6.

_____
_____
_____
_____

VI. **REQUIREMENTS TO ENHANCE OR INCREASE ACTIVITY**

What in your opinion, in order of importance, is required to enhance and/or increase exploration and/or development in New Brunswick?

_____
_____
_____

What in your opinion, in order of importance, is required to enhance and/or increase exploration and/or development in Nova Scotia?

_____
_____
_____

VII. **OTHER COMMENTS AND/OR REMARKS**

_____
_____
_____